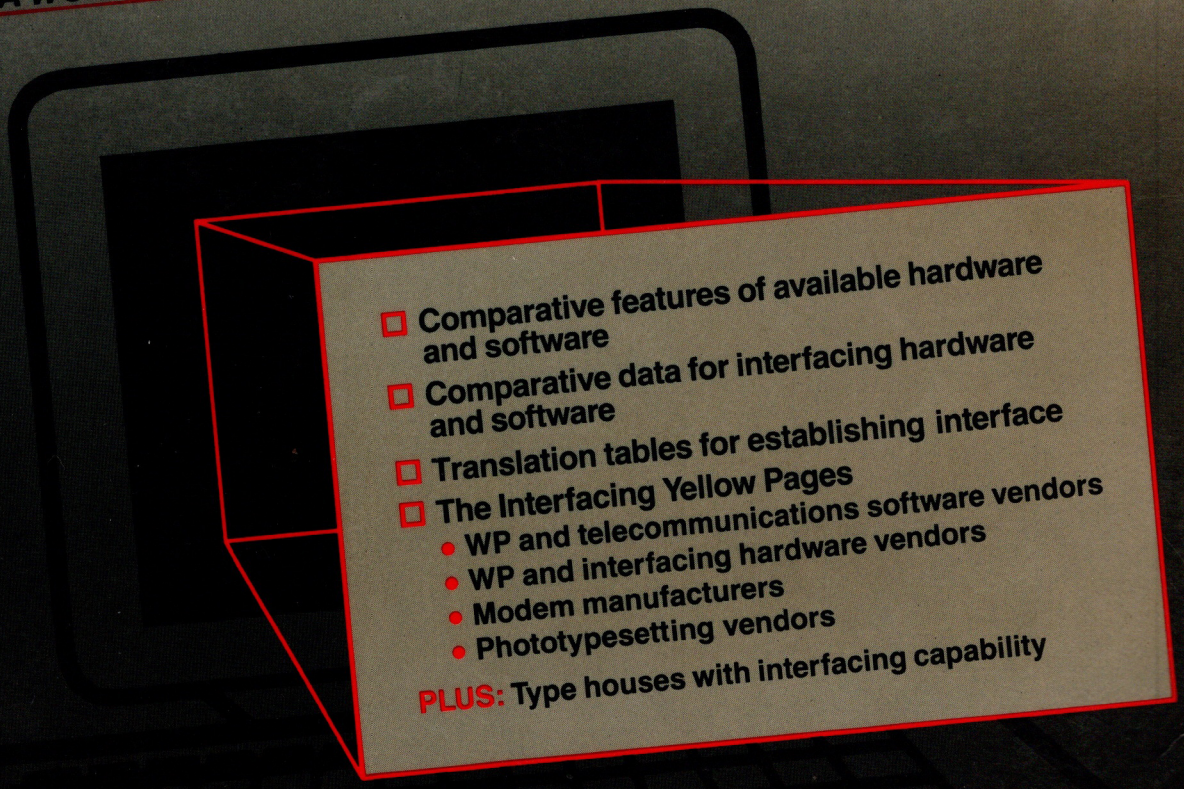
The Interface Data Book for Word Processing/ Typesetting 1984-1985

RONALD LABUZ WITH PAUL ALTIMONTE

The essential companion to *HOW TO TYPESET FROM A WORD PROCESSOR* by Ronald Labuz



- ☐ Comparative features of available hardware and software
- ☐ Comparative data for interfacing hardware and software
- ☐ Translation tables for establishing interface
- ☐ The Interfacing Yellow Pages
  - WP and telecommunications software vendors
  - WP and interfacing hardware vendors
  - Modem manufacturers
  - Phototypesetting vendors

PLUS: Type houses with interfacing capability

The Interface Data Book for Word Processing/ Typesetting

1984-1985

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The Interface Data Book for Word Processing/ Typesetting

1984-1985

Ronald Labuz

with Paul Altimonte

R. R. BOWKER COMPANY

New York and London

Published by R. R. Bowker Company
205 East Forty-second Street, New York, NY 10017
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Printed and bound in the United States of America

Library of Congress Cataloging in Publication Data

Labuz, Ronald, 1953-
The interface data book for word processing/typesetting, 1984-1985.

Includes index.
1. Word processing--Equipment and supplies. 2. Word processing--Computer programs. 3. Word processors. 4. Phototypesetting--Equipment and supplies. 5. Phototypesetting--Computer programs. 6. Type-setting machines. I. Altimonte, Paul, 1959- . II. Title.
Z52.4.L33 1984 652 84-11136
ISBN 0-8352-1908-9

Design: Finley/Wall Associates

For Carol

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Preface

This book is a specialized buying guide for interfacers. As such, it functions both as an extension of my How to Typeset from a Word Processor: An Interfacing Guide (Bowker 1984) and as an independent publication. (The Interface Data Book works best of all for readers of How to Typeset from a Word Processor who, after guided self-study, have come to the conclusion that interfacing is a sound business decision.)

Interfacers, whether established or about-to-be, are confronted with several purchase decisions:

- What are the capabilities of and compatibilities among available word processing hardware and software and typesetting machines?
- Which interface device should I buy?
- What sorts of modems are available?
- How much will things cost?
- How can I get in touch with vendors of the equipment I want to buy?
- Where can I find a type house that is prepared to interface with me?

This book answers these practical questions for: (1) graphics professionals in type houses and in firms that buy type, (2) printers, and (3) in-house graphics managers.

The Interface Data Book is divided into seven parts for easy use. Word processing hardware and software options (Parts I and II) are followed by a comprehensive survey of

available interfacing hardware and software (Parts III and IV). A complete list of phototypesetting hardware machines is given in Part VI. Those who are interested in establishing an in-house graphics facility will want to study the features and prices of both interfacing and phototypesetting hardware. Anyone who interfaces will be interested in the sections that list available modems and other telecommunications hardware and software. A complete translation table to use in communicating with Mergenthaler machines is given in Part V.

Directories of word processing and telecommunications hardware and software manufacturers and vendors of phototypesetting machines make up Part VII, The Interfacing Yellow Pages. If you are looking for a type house with which to establish an interfacing relationship, look at the final section of The Interfacing Yellow Pages, which is a state-by-state, province-by province listing of about 630 type houses that interface in the United States and Canada. (Information on the specific interfacing capabilities of most of these type houses can be found in TypeWorld's Directory of Tele-Typesetting Services and the National Composition Association's Who's Who in Typesetting.)

Care has been taken to ensure that the information in The Interface Data Book is as current, complete, and accurate as possible as of May 1984. Omissions, and an occasional error, are predestined by the volatile nature of the hardware and software markets. I take full responsibility for errors--both of commission and omission. Necessary changes that are brought

to our attention will be incorporated in the next edition of The Interface Data Book, which we expect to publish on an annual basis.

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Mohawk Valley Community College
Utica, New York

Part I

Word Processing Hardware

Standalone Word Processors

Dedicated word processors are the least effective options for interfacing. They are expensive, and they are not engineered to be efficient communicators. The problems are magnified if more than one workstation is required. Most of the dedicated machines can be retrofitted to run various types of software, including communications programs. Prices range from approximately $6,000 to over $15,000. Those prices mean that dedicated word processing is expensive interfacing. Input, however, is extremely simple with these machines. Standard features listed are included in the base price; many manufacturers also offer other options at additional cost.

Standalone Word Processors

System	Screen Size Chars. x Lines	Diskette Capacity	Printer Speed	Printer Type	Base Price	Standard Features
A. B. Dick Magna III	80 x 20	273K, each dual diskette	55 cps	Daisy-wheel	$13,500 w/ printer	Autopagination, global search and replace, glossary, merge block, standard communications
Burroughs Ofiswriter 315	72 x 30	288K, single diskette	35 cps	Daisy-wheel	$ 7,795 w/ printer	Autopagination, glossary, merge block; optional communications
Compucorp 685	80 x 20	4.8MB, rigid disk	50 cps	Daisy-wheel	$12,000-18,000	Autopagination, global search and replace, glossary, merge block, user-defined keys; optional communications, spelling verification with automatic correction
CPT 8100	80 x 54	315K, dual diskette	45 cps	Daisy-wheel	$11,990	Autopagination, global search and replace, glossary, merge block, user-defined keys; optional spelling verification, communications
Dictaphone Dual Display	102 x 66	500K, dual diskette	40 cps	Daisy-wheel	$12,500 w/ printer	Autopagination, global search and replace, glossary, merge block, user-defined keys; optional communications
Digital Equipment DECmate	80 x 24	350K, dual diskette	45 cps	Daisy-wheel	$ 6,595 w/ printer	Autopagination, global search and replace, glossary, merge block, user-defined keys, communications
IBM Display Writer	80 x 25	160K-256K, single or dual diskette	15.5, 40, or 60 cps	Daisy-wheel or Selectric	Approx. $11,000 w/ printer	Autopagination, merge block, global search and replace, user-defined keys, spelling verification with automatic correction; optional communications
Lanier EZ-1	80 x 24	140K-600K, diskette or 5MB rigid disk	45 cps	Daisy-wheel	$ 6,000 w/ printer	Autopagination, global search and replace, glossary, communications

Lanier No Problem	80 x 28	70K-300K, single or dual diskette	45 cps	Daisy-wheel	$11,250 w/ printer	Autopagination, merge block; optional global search and replace, communications
NBI Docuwriter	80 x 16	250K-500K, diskette	55 cps	Daisy-wheel	$10,600 w/ printer	Autopagination, global search and replace; optional communications
NBI OASys 3000	80 x 16	100-400 pages, diskette	55 cps	Daisy-wheel	$11,000 w/ printer	Autopagination, global search and replace, glossary, merge block; optional user-defined keys, communications
Phillips Info Systems Micom 2001	80 x 31	300K, single or dual diskette	45 cps	Daisy-wheel	$ 8,000-12,000	Autopagination, global search and replace, glossary, communications; optional user-defined keys
Raytheon Lexitron 202	102 x 25	160K, dual diskette	55 cps	Daisy-wheel	$11,750 w/ printer	Autopagination, global search and replace, merge block; optional communications
Raytheon Lexitron 1303	102 x 25	160K, dual diskette	45 or 55 cps	Daisy-wheel	$10,250 w/ printer	Autopagination, global search and replace, merge block; optional communications
Sony Series 35	96 x 60	280K, dual diskette	55 cps	Thimble	$13,825 w/ printer	Autopagination, global search and replace, merge block, glossary, communications
Syntrex Aquarius I/II	80 x 25	400K, single or dual diskette	20 or 55 cps	Daisy-wheel	$ 7,000	Autopagination, global search and replace, glossary; optional spelling verification, user-defined keys, communications
Wang Wangwriter	80 x 24	300K, diskette	20 cps	Daisy-wheel	$ 6,400	Global search and replace, glossary, communications
Xerox 860	102 x 66	300K or 600K, dual diskette	45 cps	Daisy-wheel	$15,000	Autopagination, global search and replace, merge block; optional glossary, user-defined keys, communicatons

Microcomputers

One of the most significant variables to consider when purchasing a word processing micro is the operating system (OS). Software is developed to be run on a particular OS. The following section on micros is arranged by the operating system used. The first part is devoted to those machines using CP/M, the second is devoted to MS-DOS machines, and the third section gives information for machines that use proprietary or nonstandard operating systems. It should be remembered that those vendors who use proprietary operating systems, like Apple and Wicat, often offer optional CP/M and MS-DOS. A computer that offers both CP/M and MS-DOS as standard equipment is included in the CP/M section.

CP/M Machines

Access Matrix

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Two 5¼" drives, 180K each

Keyboard: Detachable, 75 keys; numeric keypad

Terminal display: 80 characters, 24 lines

Ports: One RS-232 serial, 1 parallel printer port (printer included in base price)

Special features: The Access is an all-in-one portable. Included in the base price is a 132-column printer, 2 disk drives, a monitor, and a modem--all packaged in a box weighing 33 pounds. A transportable that's not pretty but does the job (at a very reasonable price).

Maintenance and warranty: Sold and serviced through a national network of dealers.

Base price: $2,200 (software included)

Address: Access Matrix Corp., 2159 Bering Drive, San Jose, CA 95131. (408) 263-3660

Alspa AC-1

Operating system: CP/M

Microprocessor: Z80A, 8-bit

RAM: 64K

Storage system: Drives are optional; 8", 596K, and Corvus rigid disk are included among options

Ports: Three serial, including RS-232; 2 parallel: 20-pin IEEE for printer and 34-pin for Corvus disk

Special features: The AC-1 is a component computer. The user can "create" a computer system built around the AC-1.

Base price: $1,995

Address: Alspa Computer Inc., 300 Harvey West Boulevard, Santa Cruz, CA 95060. (408) 429-6000

Altos Series 5 Multi-User Micro Systems

Operating system: CP/M, MP/M, Oasis

Microprocessor: Z80A, 8-bit

RAM: 192K

Storage system: One or 2 disk drives, 1MB each; 1 rigid disk drive, 5MB

Keyboard: Separate CRT/keyboard; terminal display dependent on VDT selection

Ports: Two to 4 serial, 1 parallel

Special features: The Series 5 is the least powerful of Altos's varied line of micro systems. (Over 30,000 systems have been sold worldwide.) The ACS8000 models have from 2 to 6 serial ports to support up to 6 users; the rigid disk capacity is 10MB-40MB; floppy capacity is 500K. The ACS8600 series uses a different microprocessor: the 8086, a 16-bit chip. Standard RAM is 500K-1000K, with 8 serial ports. The system is augmented by either a 20MB or a 40MB rigid disk. The 8600 series supports CP/M, MP/M, Oasis, and the Xenix operating systems.

Base price: Series 5, from $3,000 to $6,000; ACS8000, from $3,650 to $11,000; ACS8600, from $12,500 to $14,500

Address: Altos Computer Systems, 2360 Bering Drive, San Jose, CA 95131. (408) 946-6700

Archives Models I, II, and III

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Model I, two 5¼" drives, 386K each; Model II, two 5¼" drives, 780K each; Model III, 4.8MB rigid disk drive and backup 5¼" drive

Keyboard: Detachable, 104 keys; 23 user-definable function keys

Ports: RS-232 serial

Special features: The 23 programmable keys will facilitate word processing for Archives users. There is also a monitor for debugging a computer that's down. A basic CP/M machine for word processors.

Base price: Model I, $5,500; Model II, $6,200; Model III, $6,500

Address: Archives Inc., 404 West 35 Street, Davenport, IA 52806. (319) 386-7400, 800-553-6950

Basis 108

Operating system: CP/M; AppleDOS, Pascal optional

Microprocessor: Z80 and 6502 standard equipment, 8-bit

RAM: 64K, upgradable to 128K

Storage system: Two 5¼" drives, 780K each

Keyboard: Detachable; numeric keypad; cursor control block

Terminal display: Either 40- or 80-character display

Ports: One RS-232-C serial, 1 parallel

Special features: The Basis 108 is an Apple competitor that also allows the buyer to use CP/M software, but unlike the Apple, additional equipment need not be purchased to run CP/M. Two other models, the 208 and the 216, feature expanded memory (in the case of the 208) and a 16-bit machine capable of using the Xenix operating system popular among programmers (the 216).

Base price: The 108, $2,050

Address: Basis Inc., 5435 Scotts Valley Drive, Scotts Valley, CA 95066. (408) 438-5804

Beehive Topper

Operating system: CP/M

Microprocessor: Z80A, 8-bit

RAM: 64K

Storage system: Two 5¼" drives, 409K each

Keyboard: Detachable, 87 keys; 12-key numeric keypad; all 87 keys can be user-defined; uses both ASCII and EBCDIC code sets

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel

Special features: The Topper is a communicating computer designed to serve as an input terminal for IBM mainframes. Up to 8 Toppers can be clustered with a CC76 Cluster Controller ($5,995) to create a word processing system; a good alternative for any company with an IBM computer that wants to create a personal computer minisystem. The Topper is the first CP/M machine to be compatible with the IBM SNA mainframe network; it's also a good standard CP/M micro.

Maintenance and warranty: One-year factory service. Service organization offers both on-site and depot repair. Maintenance either on contract or time-and-materials basis.

Base price: $2,995

Address: Beehive International, 4910 Amelia Earhart Drive, Box 25688, Salt Lake City, UT 84125. (801) 355-6000

Blackhawk

Operating system: CP/M, CP/NET, MP/M

Microprocessor: Z80A, 8-bit

RAM: 64K

Storage system: Up to 4 floppy disk drives, 340K each; up to 4 rigid disk drives, 26MB each

Keyboard: 130 keys; 35 special keys, 20 user-definable keys; ASCII code set

Terminal display: 80 characters, 24 lines; programmable software allows user to create a variety of different character shapes

Ports: One RS-232 serial, 1 parallel

Special features: Basically a system-oriented micro. The 26MB rigid disk offers massive storage capabilities.

Maintenance and warranty: Either contract or carry-in service; 90-day warranty.

Base price: Systems range from $4,495 (2 floppy drives, 312K each, with 64K RAM and keyboard) to over $7,000

Address: Blackhawk Computer Systems, 426 West Second Street, Davenport, IA 52801. (319) 323-7857

BMC if800

Operating system: CP/M; CP/NET, MP/M optional

Microprocessor: Z80A, 8-bit

RAM: 64K, expandable to 256K

Storage system: Two 5¼" drives, 360K each

Keyboard: 98 keys; full numeric keypad; 10 user-definable keys, 8 special editing keys

Terminal display: 80 characters, 20 lines; or 40 characters, 25 lines; 8-color graphics

Ports: One RS-232 serial, 1 parallel

Special features: Unusually superior color graphics for a microcomputer. Easy-to-use commands, such as PAINT and LINE. The standard package includes color monitor, dot matrix printer, keyboard, and dual disk drive. Advertised as "the complete computer."

Base price: $5,000 for standard package

Address: BMC Corp., 16830 South Avalon Boulevard, Carson, CA 90746. (213) 515-6005

Columbia MPC

Operating system: CP/M, MS-DOS; MP/M optional

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 256K

Storage system: Two 5¼" drives, 320K each; 12MB rigid disk drive optional

Keyboard: IBM PC-compatible; 83 keys; numeric keypad; 10 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: Two RS-232 serial, 1 parallel

Special features: The Columbia is one of the best of the IBM PC clones (advertised as 100% compatible). The price of the Columbia includes over $3,000 worth of software, including Perfect Writer and the rest of the Perfect series, Volkswriter, CP/M, and MS-DOS.

Maintenance and warranty: Sold through a national network of dealers. Service contracts available. Also serviced by Bell & Howell (600 field representatives and more than 175 service locations throughout the country).

Base price: $3,000; typical system, with monitor and 128K RAM $4,300

Address: Columbia Data Products, 8990 Route 108, Columbia, MD 21045. (301) 992-3400

Compal 8200

Operating system: CP/M; MS-DOS optional

Microprocessor: Z80, 8-bit

RAM: 64K, expandable to 224K

Storage system: Two 5¼" drives, 630K each; 5MB-32MB rigid disk drives and 13.5MB mag-tape drive optional

Keyboard: Detachable, 72 keys; 10 user-definable keys, 10 special keys; ASCII code set

Terminal display: 80 characters, 24 lines

Ports: RS-232, RS-422, IEEE-488 serial and 1 parallel printer port standard

Special features: The 8200 and its upgraded cousin, the 8200+, are designed as first systems for small businesses. The 8200 will support several terminals (available at $1,995 each). The system price includes the operating system, terminal, printer, and disk drives. Training and systems support are advantages of this "turnkey" system sold as the office of the future.

Maintenance and warranty: Compal Training Classes for new users. 90-day warranty. Service contract, 6% of system price per year, with on-site service. Service is also available on time-and-materials basis.

Base price: Model 8200, $10,995

Address: Compal Inc., 6300 Variel Avenue, Woodland Hills, CA 91367. (213) 992-4425

Cybertext LNW80

Operating system: CP/M, Dosplus (TRSDOS-compatible)

Microprocessor: Z80, 8-bit

RAM: 96K

Storage system: Two 5¼" drives; 8" drive optional

Keyboard: Detachable; numeric keypad

Terminal display: 80 characters, 24 lines; or 64 characters, 16 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: This micro is designed specifically for communications. Software is available (microComposer) that allows user to input data for output on Compugraphic CompuWriters, EditWriters, and other phototypesetters. Prices for microComposer software range from $1,100 to $1,500.

Maintenance and warranty: Sold through Cybertext.

Base price: $2,500 (without microComposer software, but including Electric Pencil word processing program, spreadsheet, accounting package, and communications software)

Address: Cybertext Corp., Box 860, Arcata, CA 95521.
(707) 822-7079

Digilog Systems 1500 and 1800

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: System 1500, 64K; System 1800 (dual microprocessors), 128K

Storage system: System 1500, 1 disk drive, 820K, and 1 rigid disk, 5MB-10MB; System 1800, 1 disk drive, 820K, and 1 rigid disk, up to 15MB. (The 1000 and 1850 systems are sold without the rigid disk drive.)

Keyboard: 73 keys; 13 special keys

Ports: All systems, RS-232 communications port and Digilog Network Interface port

Special features: A system-oriented machine developed to serve as the nucleus of a small business network.

Maintenance and warranty: 90-day warranty.

Base price: System 1500, $8,000 or $9,000 (5MB or 10MB rigid disk); System 1800, $9,500, $10,200, or $11,500 (5MB, 10MB, or 15MB); System 1000, $4,000 or $5,000 (720K or 1.6MB floppy disk); System 1850, $2,000 (820K floppy)

Address: Digilog Business Systems Inc., Welsh Road and Park Drive, Box 355, Montgomeryville, PA 18936. (215) 443-8300

Digital Equipment Rainbow 100

Operating system: CP/M; MS-DOS optional

Microprocessor: Dual processor, Z80 and 8088, 8-bit and 16-bit

RAM: 64K, expandable to 256K

Storage system: Two 5¼" drives, 800K each; 5MB rigid disk optional

Keyboard: Detachable, 103 keys; numeric keypad; 23 function keys

Terminal display: 80 or 132 characters, 24 lines; color monitor optional

Ports: RS-232 serial

Special features: The dual processor Z80 and 8088 configuration allows users the benefit of access to both the 8-bit and 16-bit software for CP/M. Can also communicate with DEC minis.

Maintenance and warranty: Service through the more than 450 DEC sales and service offices. Customer service 800 number.

Base price: $3,500 (with monitor, CP/M, and 800K dual floppy drives)

Address: Digital Equipment Corp., 2 Mount Royal Avenue, Maynard, MA 01754. (617) 897-5111, 800-DIGITAL

Durango F-85

Operating system: CP/M, DX85M (proprietary)

Microprocessor: 8085, 8-bit

RAM: 64K, expandable to 192K

Storage system: Two floppy disk drives, 946K each; 1 rigid disk, 7MB or 14MB

Keyboard: 82 keys; numeric keypad; ASCII code set

Terminal display: 80 characters, 25 lines

Ports: IEEE-488 parallel; communications interfaces optional with IBM 2780/3780/3270 series; emulation allows computer to be used with IBM equipment

Special features: IBM emulation; proprietary software devoted to accounting and business applications, StarText word processing software.

Maintenance and warranty: Training and service provided by local dealer network. 90-day factory warranty. Maintenance available on site (annual warranty agreement or time-and-materials basis). Factory service is also available.

Address: Durango Systems Inc., 3003 North First Street, San Jose, CA 95134. (408) 946-5000, 800-538-3952, 800-662-9828 (CA)

Eagle PC

Operating system: CP/M-86, MS-DOS

Microprocessor: 8088, 16-bit

RAM: 64K (PC-E version), 128K (other models), expandable to 512K (all models)

Storage system: For PC-E, PC-1, PC-XL: one 5¼" drive, 320K; for PC-2: two 5¼" drives, 320K each; for PC-XL: 10MB rigid disk drive

Keyboard: Detachable, 105 keys; numeric keypad, with VisiCalc keys; cursor control keys; 19 user-definable keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel

Special features: The entire line of Eagle PC models listed is compatible with the IBM PC. In addition, there is the Eagle PC IIe, a CP/M machine, and the Eagle 1600, a supermicro with a 16/32-bit processor. The basic IBM-compatible machine (the PC) is being marketed as a less expensive alternative (thousands of dollars less than the IBM version).

Maintenance and warranty: National network of dealers; maintained by Bell & Howell representatives.

Base price: PC-E, $2,000; PC-1, $3,000; PC-2, $3,500; PC-XL, $4,500.

Address: Eagle Computer Co., 983 University Avenue, Los Gatos, CA 95030. (408) 395-5005

Epson QX-10

Operating system: CP/M, TP/M-II (proprietary)

Microprocessor: Z80, 8-bit

RAM: 256K

Storage system: Two 5¼" drives, 340K each

Keyboard: Detachable, 104 keys; 18-key numeric keypad; editing, cursor control, and mode keys; 17 special keys for use with VALDOCS, Epson-specific software

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel

Special features: VALDOCS is a set of software specifically designed for the Epson operating system (TP/M-II). The programs feature automatic word processing when the machine is turned on; if the user wishes to move to another program, simply pushing any of 17 keys labeled "calc," "draw," etc., invokes another software package. Along with CP/M, TP/M-II allows users to buy standard software; it also provides some interesting alternatives.

Maintenance and warranty: National dealer network. Service through dealers, on-site in most cases; service contracts available.

Base price: $3,000

Address: Epson America Inc., Computer Products Division, 3415 Kashiwa Street, Torrance, CA 90505. (215) 539-9140

Fujitsu Micro 16

Operating system: CP/M-86; MS-DOS optional

Microprocessor: Z80 and 8086

RAM: 128K, expandable to 2MB

Storage system: Two 5¼" disk drives, 320K each; 5MB, 10MB, and 20MB rigid disk drives optional

Keyboard: Detachable, 98 keys; numeric keypad; 10 user-definable keys

Terminal display: 80 characters, 25 lines; 16-color monitor; superior color graphics

Ports: One RS-232 serial, 1 parallel printer port, and ports to accommodate light pen, audiocassettes, and mouse

Special features: Dual processor configuration allows users to run IBM-compatible and CP/M software. Because the Micro 16 uses CP/M-86, 16-bit processing is possible on CP/M software. Color graphics enhance the software included with the base price: WordStar and SuperCalc. WordStar commands and key codes are color-coded (commands, yellow; key codes, blue) to make menus easier to understand.

Maintenance and warranty: Fujitsu, 4th largest computer company in the world, has offices in Santa Clara. Factory and dealer service available through 200 service centers.

Base price: $4,000

Address: Fujitsu Microelectronics, Professional Microsystems Division, 3320 Scott Boulevard, Santa Clara, CA 95051. (408) 980-0755, 800-MICRO16

IMS Models 5000 and 8000

Operating system: CP/M and TurboDOS; or MS-DOS

Microprocessor: Z80 or 8086

RAM: 64K or 128K

Storage system: Two 5¼" disk drives; 6MB, 12MB, or 24MB rigid disk

Keyboard: Detachable, 98 keys; numeric keypad; 45 user-definable keys

Terminal display: 80 characters

Ports: Two RS-232 serial, 1 parallel printer port

Special features: The IMS computers are mix-and-match computers designed for specific applications. Each user is provided with specific microprocessors as requested. CP/M and MS-DOS are possible in one computer, CP/M only in another, and so on. Multi-user systems can also be configured.

Maintenance and warranty: Maintenance through Western Union.

Base price: About $5,000; up to $13,000 for unit with 85MB rigid disk drive

Address: IMS International, 2800 Lockheed Way, Carson City, NV 89701. (702) 883-7611

Ithaca Intersystems CB-525/800

Operating system: CP/M, Cache BIOS; MP/M optional

RAM: 128K, expandable

Storage system: Two 8" drives, 1.2MB each

Keyboard: Terminals are not included in basic system

Ports: Two RS-232 serial, 4 parallel

Special features: Ithaca engineers a professional micro that can be upgraded to a micro system accommodating as many as 6 users. The Cache BIOS modifies CP/M handling of peripherals to speed up communications between the CPU and peripherals. (Pascal code, for instance, reportedly runs up to ten times faster.)

Maintenance and warranty: Warranty and service agreements available from the manufacturer.

Base price: $6,500

Address: Ithaca Intersystems, 1650 Hanshaw Road, Ithaca, NY 14850. (607) 273-2500

Kaypro 4

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Two 5¼" double-density disk drives, 390K each

Keyboard: Detachable, 75 keys; numeric keypad; cursor control keys; 14 user-definable keys

Terminal display: 80 characters, 24 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: The Kaypro 4 is an upgraded version of the model II. It offers double-density drives that provide the equivalent of 250 typewritten pages of RAM. A turnkey computer that is being sold on both the business and personal computer markets.

Maintenance and warranty: Service provided by a network of 750 independent dealers and over 150 SORBUS service centers. 90-day warranty.

Base price: $1,800

Address: Non-Linear Systems, Kaypro Corp., 533 Stevens Avenue, Solana Beach, CA 92075. (619) 481-4300, 800-447-4700

Kaypro 10

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: One 10MB hard disk, one 8" drive

Keyboard: Detachable, 62 keys; numeric keypad

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel printer port, 1 light-pen input

Special features: At a base price of $2,800, the Kaypro 10 offers about $2,000 worth of software and a 10MB hard disk that itself would cost more than $2,000. An extremely well-priced portable (or, as the manufacturer calls it, "transportable").

Maintenance and warranty: Service provided by a network of 750 independent dealers and over 150 SORBUS service centers. 90-day warranty.

Base price: $2,800

Address: Non-Linear Systems, Kaypro Corp., 533 Stevens Avenue, Solana Beach, CA 92075. (619) 481-4300, 800-447-4700

Modcomp Zorba

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Two 5¼" drives, 410K each

Keyboard: Detachable, 95 keys; 13-key numeric keypad; 19 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 IEEE-488 parallel, 1 dual serial/parallel port

Special features: A portable that offers several I/O ports and, more importantly, disk emulation. The Zorba offers automatic reading of Osborne, Kaypro, IBM, DEC, Xerox, Televideo, and a dozen other disk formats.

Maintenance and warranty: Marketed through regional distributorships. Service arrangements may vary with dealer.

Base price: $2,000 (software included)

Address: Modular Computer Systems, 1650 West McNab Road, Fort Lauderdale, FL 33310. (305) 974-1380

Morrow Micro Decision 3

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Two 5¼" drives, 384K each

Keyboard: Detachable, 81 keys; numeric keypad; cursor control keys

Terminal display: 80 characters, 25 lines

Ports: Two RS-232 serial

Special features: A basic small business computer, at a great turnkey price. Software included in the base price is BASIC, WordStar, LogiCalc spreadsheet, Personal Pearl, Database Manager, and Correct-It Spelling Checker (40,000-word dictionary).

Maintenance and warranty: Service provided by a national dealer network.

Base price: $1,900

Address: Morrow Designs Inc., 5221 Central Avenue, Richmond, CA 94804. (415) 524-2101

NEC Advanced Personal Computer

Operating system: CP/M-86

Microprocessor: NEC 8086, 16-bit

RAM: 128K

Storage system: One 8" drive, 1.2MB

Keyboard: Detachable, 109 keys; numeric keypad; 22 user-definable function keys

Terminal display: 80 characters, 25 lines; characters in any of 3 colors; up to 256 characters can be created by the user

Ports: One serial, 1 parallel

Special features: Slightly faster than IBM's 8088 and equipped with disk drives that allow more memory than IBM's 5¼" drives, the APC is a direct competitor to the IBM PC. An additional disk drive and a color monitor are available.

Base price: $3,300

Address: NEC Information Systems Inc., 5 Militia Drive, Lexington, MA 02173. (617) 862-3120

NorthStar Advantage

Operating system: CP/M; MS-DOS, G-DOS (proprietary) optional

Microprocessor: Z80, 8-bit; 8088 coprocessor card optional

RAM: 64K, expandable to 256K

Storage system: Two 5¼" drives, 320K each

Keyboard: 87 keys; numeric keypad; cursor control keys; 15 user-definable function keys

Terminal display: 80 characters, 24 lines

Ports: Optional

Special features: High-resolution graphics and an optional coprocessor. One can use either CP/M or NorthStar's own operating system (G-DOS) or purchase MS-DOS as an option. NorthStar also offers the 8/16--with 8088 coprocessor and 5MB rigid disk--for $4,900.

Maintenance and warranty: Sold through 350 retail store network; regional sales offices.

Base price: $3,000

Address: NorthStar Computers Inc., 14440 Catalina Street, San Leandro, CA 94577. (415) 357-8500

Onyx Sundance II

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 128K, expandable to 256K

Storage system: 6.7MB rigid disk, 10MB tape-cartridge drive

Keyboard: Detachable, 85 keys; numeric keypad; 19 user-definable function keys

Terminal display: 132, 80, 66, or 40 characters; 24 or 12 lines

Ports: Two serial, 1 parallel, 1 full-duplex serial telecommunications port

Special features: The tape-cartridge drive offers huge storage in a Z80 machine. Software included with the basic package is WordStar, Mailmerge, SuperCalc, and SuperSet. The RS-232 port allows 2 users to use the machine at one time.

Maintenance and warranty: Sold through dealer network.

Base price: $5,800

Address: Onyx Systems, 25 East Trimble Road, San Jose, CA 95131. (408) 946-6330

Osborne Executive

Operating system: CP/M; MS-DOS optional

Microprocessor: Z80, 8-bit; 8088 coprocessor card optional

RAM: 128K, expandable to 256K

Storage system: Two 5¼" drives, 160K each

Keyboard: Detachable, 69 keys; numeric keypad; cursor control keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 IEEE-488 parallel, connector for 8088 coprocessor board

Special features: The Executive has become something of a computer rarity. Brought out just before Osborne's financial difficulties in 1983, the Executive might have resolved some problems, but not enough were produced quickly enough to make a difference.

Maintenance and warranty: Service and sales through national network of dealers and factory. 90-day warranty.

Base price: $2,500 ($3,100 with 8088 card)

Address: Osborne Computer Corp., 26500 Corporate Avenue, Hayward, CA 94545. (415) 887-8080

Osborne 1

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 60K

Storage system: Two 5¼" drives, 92K each

Keyboard: Detachable, 69 keys; numeric keypad; 10 user-definable keys

Terminal display: 52 characters, 24 lines; optional monitor expands display

Ports: One RS-232 serial, 1 IEEE-488 parallel printer port

Special features: Established by Adam Osborne in 1981, the Osborne company went through financial difficulties in 1983. In part because of those problems, the Osborne 1 often sells for hundreds of dollars less than the base price.

Maintenance and warranty: Through a national dealer network.

Base price: $1,800

Address: Osborne Computer Corp., 26500 Corporate Avenue, Hayward, CA 94545. (415) 887-8080

Otrona Attache 8/16

Operating system: CP/M, MS-DOS

Microprocessor: Z80 and 8086 (coprocessors), 8-bit and 16-bit

RAM: Z80, 64K; 8086, 256K

Storage system: Two 5¼" drives, 360K each

Keyboard: Detachable, 63 keys; cursor control keys; many user-programmable keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, expansion slots optional

Special features: Software included in base price: WordStar, Charton graphics, Valet, and sound synthesizer. Valet allows user to send and receive messages from network users without leaving current program. A portable that's truly portable--only 18 pounds, compared to the standard 30+ pounds.

Maintenance and warranty: Sold and serviced through a national network. 90-day warranty.

Base price: $3,800

Address: Otrona, 4755 Walnut Street, Boulder, CO 80301. (303) 444-8100

Product Associates Z-Disk

Operating system: CP/M, CP/NOS, MP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Up to four 5¼" drives, 280K each; 10MB rigid drive optional

Keyboard: CRTs are optional; Z-Disk is a system-oriented computer that supports many types of terminals

Ports: Two RS-232 serial, 1 parallel

Special features: Z-Disk is the hub of a system. Up to 6 users can be networked using the CP/NOS operating system. Product Associates sells the system both as a standalone computer and as a system with 1 master unit and 5 slaves, meaning 6 terminals that form a mini-network.

Maintenance and warranty: Factory service.

Base price: Single-user, $4,000; 6-user network, with Comstar (word processing and communications software), $8,000

Address: Product Associates Inc., 465 Convention Way, Redwood City, CA 94063. (415) 364-3121

Sanyo MBC-1000+

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: One 5¼" drive, 320K; additional 5¼", 8", and rigid drives optional

Keyboard: Detachable; numeric keypad; cursor control keys; 5 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, several expansion slots for peripherals

Special features: The MBC-1000+ is a basic business computer at a good price. Special characters can be created and window-display areas can be intensified on screen. It also comes with a diagnostic test that checks the disk drives and memory.

Maintenance and warranty: Sold and serviced through a national network of dealers.

Base price: $2,000 (CP/M and SBASIC included; other software available)

Address: Sanyo Business Systems Corp., 51 Joseph Street, Moonachie, NJ 07074. (201) 440-9300

Seequa Chameleon

Operating system: CP/M, MS-DOS

Microprocessor: Dual Z80 and 8088

RAM: 128K; Chameleon+, 256K

Storage system: Two 5¼" drives, 160K each; Chameleon+, two 5¼" drives, 320K each, 10MB rigid disk drive optional

Keyboard: Detachable; numeric keypad; 10 user-definable keys; lighted shift-lock key

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel

Special features: The major selling point of either the Chameleon or the upgraded Chameleon+ is the dual processor system. If the user changes from a CP/M to a MS-DOS program, the Chameleon automatically selects the correct microprocessor to use. There's no other $2,000 computer with the features of the Chameleon.

Maintenance and warranty: Sold and serviced through a national network of over 120 dealers. Service could be problematical if Seequa ever has financial problems; the Chameleon uses nonstandard LSI (large-scale integration) chips that might be difficult to replace if not available from Seequa.

Base price: Chameleon, $2,000; Chameleon+, $2,895

Address: Seequa Computer Corp., 209 West Street, Annapolis, MD 21401. (301) 268-6650

Seiko Series 8600

Operating system: CP/M-86, MP/M-86, MS-DOS, UNI-DOL (UNIX-compatible OS)

Microprocessor: 8086, 16-bit

RAM: 128K, expandable to 512K

Storage system: Two 5¼" drives, 640K each; 10MB rigid disk drive optional

Keyboard: Detachable, 100 keys; numeric keypad; cursor control keys; 20 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: Four RS-232 serial, 1 parallel printer port; communications interface optional

Special features: A heavy-duty business computer; can serve as the hub of a small micro network: up to 4 users can use the 8600 if the multi-user MP/M-86 OS is ordered ($650). A true 16-bit machine combined with self-diagnostics, easy-to-read manuals, and, most importantly, access to 4 standard operating systems.

Maintenance and warranty: Sold and serviced through a national network of distributors and dealers authorized by the master distributor: Intech Systems; on-site and take-in service available.

Base price: $5,500

Address: Seiko-Intech Systems Corp., 2025 Royal Lane, Dallas, TX 75229. (214) 241-1717, 800-368-5010

Sony SMC-70

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K, expandable to 256K

Storage system: Two 3½" drives, 280K each

Keyboard: 72 keys; cursor control keys; 5 user-definable function keys

Terminal display: 40 or 80 characters, 25 lines; 8 colors

Ports: One RS-232 serial, 1 parallel printer port, light pen and numeric keypad ports

Special features: Vivid color is one of the major selling points of Sony computers. The available software is quite good, but the new 3½" disk drives limit the options of the buyer. An optional 8086 adapter allows the machine to be upgraded to 16-bit operation.

Maintenance and warranty: A national network of dealers sells the computer. Service is provided by Sony's Microcomputer Division, but the machine is built to be easily repaired: major components can simply be replaced when repairs are necessary.

Base price: $3,600, with color monitor and two disk drives

Address: Sony Corp. of America, Microcomputer Products Division, 9 West 56 Street, New York, NY 10019. (212) 371-5800

Televideo TS800 Series

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K, expandable to 128K in system TS816

Storage system: TS801 and TS802, two 5¼" drives, 737K each; TS802H, additional 7.4MB rigid disk ($7,000); TS816, additional 18MB rigid disk

Keyboard: Detachable, 101 keys; numeric keypad; cursor control keys; 11 user-definable function keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel printer port. One of the RS-232 ports can be upgraded to the faster RS-422. The TS806 system, a 6-user network, has 5 additional RS-422 ports; the TS816, a 16-user network, offers 10 additional ports.

Special features: Expandability is the key to the TS800 series. A user can begin with one terminal and expand as needed to a 16-user microcomputer network.

Maintenance and warranty: Sold and serviced through a national network of dealers and regional offices. 800 number for customer support.

Base price: Single-user 801 system, $3,500

Address: Televideo Systems Inc., 1170 Morse Avenue, Sunnyvale, CA 94086. (408) 745-7760, 800-538-8725

Texas Instruments Professional Computer

Operating system: CP/M, CP/M-86, MS-DOS, UCSD

Microprocessor: 8088, 16-bit

RAM: 64K, expandable to 256K

Storage system: One 5¼" drive, 320K

Keyboard: Detachable, 92 keys; adjustable from 5° to 15° slope; numeric keypad; cursor control keys; 12 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: Five slots for interface to peripherals, optional RS-232 serial interface (using synch/asynch board)

Special features: In the home computer market, the TI-99 suffered losses, in part, because of a proprietary operating system. The Professional Computer (still selling well) allows the user the choice of 4 standard operating systems. Excellent resolution and keyboard design make this another strong competitor of the IBM PC/professional business computer.

Maintenance and warranty: Sold and serviced through a national network of regional offices, company sales outlets, and independent dealers, including ComputerLand.

Base price: $2,200 (64K, monochrome display)

Address: Texas Instruments, Data Systems Group, Box 402430, Dallas, TX 75240. 800-527-3500

Toshiba T100

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K, expandable

Storage system: Two 5¼" drives, 560K each

Keyboard: Detachable, 88 keys; numeric keypad; cursor control keys; 8 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: Stunning 8-color graphics in a standard CP/M-based machine at a good price. RAM is available in component packs, with built-in battery backup, so that even if removed from computer, memory is retained.

Maintenance and warranty: Sold and serviced through a national network of dealers.

Base price: $2,400 (CPU, terminal, disk drives, CP/M); all components are sold on a mix-and-match basis.

Address: Toshiba America Inc., 2441 Michelle Drive, Tustin, CA 92680. 800-447-2882, 800-332-4400 (IL)

Vector Graphic Series 4 and 5

Operating system: CP/M, CP/M-86, MS-DOS; MP/M optional

Microprocessor: Dual Z80 and 8088

RAM: 128K, expandable to 256K

Storage system: Varies with system: Series 4, two 5¼" drives; Series 5, one 5¼" drive and one 5MB rigid disk drive

Keyboard: Detachable, 91 keys; 15 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: Series 4: 1 RS-232 serial, 1 parallel, 2 expansion slots; Series 5: 2 RS-232 serial, 2 parallel, 12 expansion slots

Special features: Both series are based upon the multi-user system principle. Multiple configurations are offered to meet the needs of any small business setting. The LINC network supports both asynchronous and synchronous transmissions.

Maintenance and warranty: Sold and serviced by a national network and the factory.

Base price: Series 4, $2,800-$10,000; Series 5, $3,300-$10,500

Address: Vector Graphic Inc., 500 North Ventu Park Road, Thousand Oaks, CA 91320. (805) 499-5831

Xerox 820-II

Operating system: CP/M

Microprocessor: Z80, 8-bit

RAM: 64K

Storage system: Two 5¼" drives, 83K each; 5¼" drives (125K, 250K, 498K, or 980K) and rigid disk drive (10MB) optional

Keyboard: Detachable, 96 keys; numeric keypad

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel printer port

Special features: Compatibility with standard CP/M has made the 820 one of the better-selling business standalones. Easy connection to Xerox's Ethernet makes it a good selection in any situation where several types of office equipment are being networked. A good word processing package (customized version of WordStar) rounds out the package.

Maintenance and warranty: Sold and serviced through national network of Xerox sales force.

Base price: $3,100

Address: Xerox Corp., Xerox Square, Rochester, NY 14644. (716) 427-5400

Zenith Model 100

Operating system: CP/M, MS-DOS (Z-DOS version, proprietary)

Microprocessor: Dual 8085 and 8086, 8-bit and 16-bit

RAM: 128K, expandable to 768K

Storage system: One 5¼" drive, 320K; additional 5¼" drive, 8" drive, and rigid disk drive optional

Keyboard: 108 keys; numeric keypad; function keys

Terminal display: 80 characters, 25 lines

Ports: Two RS-232 serial, 1 parallel printer port

Special features: This is the only computer on the market you can build yourself; if you buy it from Heath, it's a Heath Model 100, and it costs $1,000 less and 28 hours of soldering. The dual processor configuration permits both CP/M and MS-DOS software at a very low price if you are handy with a soldering gun.

Maintenance and warranty: Sold and serviced by all HeathKit stores, as well as the more than 900 Zenith Data Systems outlets.

Base price: $2,200 (Heath kit); $3,200 (Zenith model)

Address: Zenith Data Systems Division, 1000 Milwaukee Avenue, Glenview, IL 60025. (312) 391-7000; The Heath Co., Benton Harbor, MI 49022. 800-253-0570

MS-DOS Machines

Compaq

Operating system: MS-DOS; CP/M, MP/M, Oasis, Xenix optional

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 640K

Storage system: One 5¼" drive, 320K

Keyboard: Detachable, 83 keys; 10-key numeric keypad; 10 user-definable keys

Terminal display: 80 characters, 25 lines; monochrome and color graphics available

Ports: Parallel printer port; RS-232 optional ($145)

Special features: A portable clone of the IBM PC, Compaq is a current winner in the IBM-compatibility market. This "portable" weighs 28 pounds, so portability is not the selling point. Good graphics, many available operating systems, and 128K RAM mean a good, inexpensive computer workstation.

Maintenance and warranty: Dealers provide service. Software is not available from Compaq: purchasers must buy software as they need it.

Base price: $2,995

Address: Compaq Computer Corp., 12337 Jones Road, Houston, TX 77070. 800-231-9966

Computer Devices Dot

Operating system: MS-DOS; CP/M optional

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 704K

Storage system: Two 3½" drives, 280K each

Keyboard: Detachable, 102 keys; numeric keypad

Terminal display: 80 or 132 characters, 25 lines

Special features: The Dot is a package: the base price includes a printer, software, 2 disk drives, and MS-DOS. Unfortunately, the disk drives are 3½", not 5¼", which makes the transferring of information problematical. There are, however, more and more devices moving to the 3½" drive (Sony's SMC, for instance).

Maintenance and warranty: Sold and serviced through a national dealer network.

Base price: $4,700

Address: Computer Devices Inc., 25 North Avenue, Burlington, MA 01803. (617) 273-1550

Corona PC

Operating system: MS-DOS

Microprocessor: 8088, 16-bit

RAM: 64K

Storage system: Two 5¼" drives, 320K each; rigid disk drive optional

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: A desktop computer with high-resolution graphics and IBM-compatibility.

Maintenance and warranty: Sold and serviced through dealer network.

Base price: $2,600

Address: Corona Data Systems, 31324 Via Colinas, Westlake Village, CA 91361. (213) 706-1505

Dynalogic Hyperion

Operating system: MS-DOS

Microprocessor: 8088, 16-bit

RAM: 256K

Storage system: Two 5¼" drives, 327K each; reads standard IBM PC diskettes

Keyboard: Detachable, 84 keys; numeric keypad; 10 user-definable function keys, 13 special keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: A portable IBM-compatible that is expensive and good-looking. Powerful (256K RAM) and compact, the Hyperion is not so much a portable as it is a business computer. For telecommunications, there is a built-in modem with auto-answer, autodial, and time-and-date clock. (The computer is also called the Bytec Hyperion.)

Maintenance and warranty: Service and sales through a national network of dealers. 90-day warranty.

Base price: $3,700 (software included)

Address: Dynalogic Info-Tech Corp., 141 Bentley Avenue, Ottawa ON K2E 6T7, Canada. (613) 226-1383

Hitachi MB16000

Operating system: MS-DOS

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 384K

Storage system: Two 5¼" drives

Keyboard: Detachable, 86 keys; numeric keypad; 5 user-definable keys, with audio tone controlled by volume control

Terminal display: 40 or 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port; ports for light pen, rigid disk, and CRT optional

Special features: The Hitachi can serve as either a terminal or a standalone computer, using an 8-position dip switch to determine the state of the machine (position 1 switches to terminal status, position 3 switches to 80 characters per line, and so on).

Maintenance and warranty: Through dealer network and Hitachi's sales arm: Hitachi Sales Corp. of America.

Base price: $3,100

Address: Hitachi Sales Corp. of America, Personal Computer Division, 401 West Artesia Boulevard, Compton, CA 90220. (213) 537-8383

IBM PC

Operating system: MS-DOS; CP/M-86, UCSD optional

Microprocessor: 8088, 16-bit (8-bit data transfer)

RAM: 64K, expandable to 640K

Storage system: Two 5¼" drives, 360K each

Keyboard: Detachable, 83 keys; numeric keypad; cursor control keys; 10 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: RS-232 serial, several expansion slots for peripherals

Special features: The PC made the purchase of micros a defensible decision in the corporate world--if IBM is selling it, who can argue?

Maintenance and warranty: Maintenance by carefully selected dealer network, including ComputerLand and Sears stores. 90-day warranty; service agreements and extensions available.

Base price: $5,300

Address: International Business Machines, Building 227, Box 1328, Dept. 8M3, Boca Raton, FL 33432. 800-447-4700

Sperry Personal Computer

Operating system: MS-DOS

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 640K

Storage system: Two 5¼" drives, 360K each; 10MB rigid disk drive optional

Keyboard: Detachable; numeric keypad; 10 function keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: Five Sperry models are offered. The Model 10 has 1 disk drive; the Model 20 has a second drive. Model 30 is equipped with a color monitor and two 5¼" drives. Models 40 and 50 are monochrome and color monitor variations of a system equipped with the 10MB rigid disk drive. Sperry makes it quite obvious in its sales literature that its personal computer is manufactured to be IBM-compatible. Superior color graphics and the ability to easily communicate with either Sperry or IBM minis and mainframes are among the major selling points.

Maintenance and warranty: 90-day warranty. Several service agreements are available, including on-call, over-the-counter, or through centralized repair centers. The buyer can also purchase do-it-yourself servicing guides.

Address: Sperry Corp., Computer Systems, 1290 Avenue of the Americas, New York, NY 10104. (212) 484-4444

Televideo 1603

Operating system: MS-DOS; CP/M-86 optional

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 256K

Storage system: Two 5¼" drives, 737K each

Keyboard: Detachable, 101 keys; numeric keypad; cursor control keys; 11 user-definable function keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel printer port

Special features: The 1603 is Televideo's runner in the IBM-compatible race. It offers huge storage capability instead of the superior graphics of IBM (optional graphics cost $495 more than the base price of the 1603). A good possibility to look at for word processors who don't use bar charts.

Maintenance and warranty: Sold and serviced through a national network of dealers and regional offices. 800 number for customer support.

Base price: $3,000

Address: Televideo Systems Inc., 1170 Morse Avenue, Sunnyvale, CA 94086. (408) 745-7760, 800-538-8725

Toshiba T300

Operating system: MS-DOS

Microprocessor: 8088, 16-bit

RAM: 192K, expandable to 512K

Storage system: Two 5¼" drives, 640K each

Keyboard: Detachable, 88 keys; numeric keypad; cursor control keys; 8 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port

Special features: Excellent color graphics and huge storage capability--that's Toshiba's selling point in the IBM-clone competition. The color monitor adds $1,000 to the base price.

Maintenance and warranty: Sold and serviced through a national network of dealers.

Base price: $3,000

Address: Toshiba America Inc., 2441 Michelle Drive, Tustin, CA 92680. 800-447-2882, 800-332-4400 (IL)

Victor 9000

Operating system: MS-DOS, CP/M-86; UNIX optional

Microprocessor: 8088, 16-bit

RAM: 128K, expandable to 894K

Storage system: Two 5¼" drives, 600K each; 5MB rigid disk drive optional

Keyboard: Detachable, 105 keys; numeric keypad; 25 user-definable funtion keys optional

Terminal display: 80 characters, 25 lines; or 132 characters, 50 lines

Ports: Two RS-232 serial, 2 parallel

Special features: The 9000 is another competitor of IBM's PC that offers its own advantages. Excellent character resolution and a built-in voice synthesizer are combined with user-programmable characters that can be displayed on screen.

Maintenance and warranty: Dealer network of over 200 independent computer outlets.

Base price: $3,500

Address: Victor Technologies Inc., 380 El Pueblo Road, Scotts Valley, CA 95066. (408) 438-6680

Wang Professional Computer

Operating system: MS-DOS; CP/M optional

Microprocessor: Dual Z80 and 8086, 8-bit and 16-bit (Z80 optional)

RAM: Z80, 64K; 8086, 128K, expandable to 640K

Storage system: Two 5¼" drives, 360K each; 5MB rigid disk drive optional

Keyboard: Detachable, 101 keys; numeric keypad; cursor control keys; 16 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1 parallel printer port, 5 expansion slots

Special features: The optional dual processor allows the Wang to offer its users both MS-DOS and CP/M software. As might be expected, outstanding word processing features is the major advantage offered against the IBM PC.

Maintenance and warranty: Sales and service through a national network of Wang offices. Technical association offers user advice.

Base price: $3,700

Address: Wang Laboratories Inc., One Industrial Avenue, Lowell, MA 01851. (617) 851-4111

Xerox 16/8

Operating system: MS-DOS, CP/M-86

Microprocessor: Dual Z80 and 8086, 8-bit and 16-bit

RAM: Z80, 64K; 8086, 128K

Storage system: Two 8" drives, 497K each

Keyboard: Detachable, 96 keys; numeric keypad; 12 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: Two RS-232 serial, 1 parallel printer port

Special features: The dual microprocessor configuration offers users the choice of both CP/M and MS-DOS software. As an IBM competitor, the greatest advantage is easy Ethernet interfacing and good color graphics.

Maintenance and warranty: Sold and serviced through a national network of Xerox sales force and Xerox retail stores.

Base price: $3,400

Address: Xerox Corp., Xerox Square, Rochester, NY 14644. (716) 427-5400

Proprietary Operating Systems

AT&T 3B System

Operating system: UNIX

Microprocessor: WE 32000, 32-bit

RAM: 512K, expandable to 2MB

Storage system: Floppy drive, 720K; rigid disk drive, 10MB or 32 MB

Keyboard: Numeric keypad; user-definable keys

Terminal display: Several different options available

Ports: Two RS-232 ports standard; additional RS-232 ports and parallel printer port optional

Special features: The 3B2/300 is a superintelligent microcomputer that is basically sold to communicate with even more intelligent minicomputers. The 3B2/300 is fully compatible with other members of the 3B system: the 3B5, 3B20A, and 3B20S minicomputers. That compatibility, along with the UNIX operating system, may make the 3B system a popular choice among computing professionals.

Maintenance and warranty: Self-diagnostics and user documentation are augmented by AT&T service.

Address: AT&T Technology Systems Inc., 32 Avenue of the Americas, New York, NY 10013. 212-925-8066

Apple Lisa

Operating system: Lisa; Xenix optional

Microprocessor: 68000, 16/32-bit

RAM: 1MB

Storage system: Two 5¼" drives, 860K each; 5MB rigid disk drive optional

Keyboard: Detachable, 76 keys; numeric keypad; mouse is also used to control video display monitor

Terminal display: 132 characters, 40 lines; working symbols are also displayed

Ports: Two RS-232C serial with half- and full-duplex channels, 1 parallel

Special features: The mouse is used to control activities on screen. "Tokens" displayed on screen include a wastebasket, file folder, and clipboard. No complicated instructions; menu-driven.

Maintenance and warranty: Through a national dealer network of 1400 authorized outlets.

Base price: Originally $10,000

Address: Apple Computer Inc., 10260 Bandley Drive, Cupertino, CA 95014. (408) 996-1010

Apple Macintosh

Operating system: Proprietary

Microprocessor: 68000, 32-bit

RAM: 128K

Storage system: One 3½" drive, 400K

Keyboard: Detachable, 58 characters; mouse controls video display

Terminal display: 9" video display, similar to Lisa

Ports: RS-232 and RS-422 serial; RS-422 is AppleBus serial port for communications with Apple equipment

Special features: The Macintosh is the less expensive version of the Lisa. By bringing the Lisa price way down, Apple has made the mouse/display features of the Lisa available to a much larger market.

Maintenance and warranty: Through a national network of 1400 authorized Apple dealers.

Address: Apple Computer Inc., 10260 Bandley Drive, Cupertino, CA 95014. (408) 996-1010

Apple IIe

Operating system: AppleDOS; CP/M, MS-DOS optional

Microprocessor: 6502, 8-bit

RAM: 64K, expandable to 128K

Storage system: One 5¼" drive, 140K; second drive optional

Keyboard: Detachable, 63 keys; ASCII code set; several user-definable keys; keyboard is expandable through purchase of peripheral, e.g., KeyWiz VIP ($439)

Terminal display: 40 characters, expandable to 80

Ports: One RS-232 serial, 1 IEEE-488 parallel

Special features: The Apple is one of the 4 best-selling micros in the market today. Because of that marketing strength, Apple can successfully offer a proprietary operating system. A basic first computer. Apple III is essentially a IIe with a numeric keypad.

Maintenance and warranty: Service is offered through a huge dealer network: over 1400 authorized Apple outlets in the United States and Canada.

Base price: $2,390 (with 80-column display)

Address: Apple Computer Inc., 10260 Bandley Drive, Cupertino, CA 95014. (408) 996-1010

Billings BC-12FD

Operating system: BOS (Billings Operating System)

Microprocessor: Z80A, 8-bit

RAM: 56K

Storage system: Two 5¼" drives, 315K each

Keyboard: Detachable, 94 keys; 16-key numeric keypad; 16 user-definable keys

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 1 parallel

Special features: The BC is sold specifically to the science, engineering, and high-tech markets. The computer is sold as the hub of a system: it can support 2 additional terminals and 4MB of storage. The Small Business System and the Branch Office System are expensive alternatives for the buyer interested in only word processor interfacing.

Maintenance and warranty: Sold through a national network of dealers. Billings offers a maintenance contract and training programs through its sales network.

Base price: $3,000

Address: Billings Computer Corp., 18600 East 37 Terrace South, Independence, MO 64057. (816) 373-0000

Commodore 64

Operating system: Commodore OS; CP/M optional

Microprocessor: 6502, 8-bit

RAM: 64K

Storage system: None included with base price; optional 5¼" disk drives, 170K (up to 4 drives allowed per system)

Keyboard: 66 keys; 4 user-definable keys

Terminal display: 40 characters, 25 lines

Ports: Several ports for game cartridges and audio/video connectors; serial port for printer; RS-232 for modem

Special features: The 64 is basically a home computer, but it can be retrofitted for business applications. The base price includes only the computer and keyboard; terminal, disk drives, and software are not included. The RS-232 and IEEE-488 interface cartridges also cost extra.

Maintenance and warranty: Over 600 dealers in the United States, in addition to 7 regional centers and Commodore's Customer Service Division.

Base price: $700; disk drives, $400 each; monitor, interface ports, and software additional

Address: Commodore Business Machines, Computer Systems Division, The Meadows, 487 Devon Park Drive, Wayne, PA 19087. (215) 687-9750

Corvus Concept

Operating system: CCOS (Corvus Concept Operating System), CP/M-emulating system

Microprocessor: 68000, 16-bit

RAM: 256K, expandable to 512K

Storage system: Concept 256, 1 floppy disk drive, 256K; Concept 512, 1 rigid disk drive, 6MB

Keyboard: Detachable, 96 keys; 12 special keys; all keys are user-definable

Terminal display: 80 characters, 72 lines; or 120 characters, 65 lines; dual mode on all machines

Ports: Two RS-232 serial

Special features: A standalone, turnkey system that's designed for the small business environment. Powerful options include up to 20MB rigid disk drives. Excellent graphics capabilities and split-screen "window" display.

Maintenance and warranty: Six-month warranty. Maintenance through dealer network and service centers. Extended warranties available.

Base price: $6,495 (floppy disk drive); $10,000 (rigid disk drive)

Address: Corvus Systems Inc., 2029 O'Toole Avenue, San Jose, CA 95131. (408) 946-7700

Cromemco CS Series

Operating system: CDOS (CP/M-emulating OS), CROMIX (Xenix-emulating)

Microprocessor: Z80, 8-bit (except the 68000-based System One, 68000, 16-bit)

RAM: All models (except the CS0 and System One), 64K; CS0, limited applications with 1K; System One, 512K

Storage system: CS One, two 5¼" drives, 780K each; CS Two, two 5¼" drives, 390K each; CS Three, two 8" drives, 2.4MB each; CS1 equipped with rigid disk, 6MB

Keyboard: Detachable; numeric keypad; 20 user-definable keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 1EEE-488 (except C10 personal computer), C-NET, modem interfaces

Special features: The UNIX-emulating OS will make the Cromemco popular among professional programmers. A dual processor system (Z80 and 68000) allows both CP/M and Xenix as options on the same machine (due 1984). Terminal and other peripherals are not included in base price.

Maintenance and warranty: Training available from 350 authorized dealers. 90-day warranty.

Base price: C10 personal computer, $2,380 (including terminal and disk drive); CS One, $5,700 (including terminal and built-in drive); CS Three and 68000-based System One, up to $10,000

Address: Cromemco Inc., 280 Bernardo Avenue, Mountain View, CA 94040. (415) 964-7400

Digital Equipment Professional 300 Series

Operating system: POS (Professional Operating System)

Microprocessor: PDP-11/23 (F-11), 16-bit

RAM: 256K

Storage system: Two 5¼" drives, 800K each

Keyboard: 103 keys; numeric keypad; several function keys

Terminal display: 80 or 132 characters, 24 lines; high-resolution color monitor optional

Ports: RS-232 serial

Special features: The entire line of 300 series computers are able to operate either as standalone computers or as terminals communicating to Digital's minis, the PDP-11 or the VAX. That feature allows storage and communication of data between minis and micros. The Professional series may be the answer for larger organizations equipped with a Digital minicomputer.

Maintenance and warranty: Over 450 sales and service centers. 800 number for service.

Base price: Professional 325, $4,000; Professional 350, $5,000

Address: Digital Equipment Corp., 2 Mount Royal Avenue, Maynard, MA 01754. (617) 897-5111, 800-DIGITAL

Fortune 32:16

Operating system: UNIX, For Pro

Microprocessor: 68000, 16-bit

RAM: 128K, expandable to 1000K

Storage system: One 5¼" drive, 800K, and one 5MB, 10MB, or 20MB rigid disk; addition of up to four 5¼" or rigid disk drives optional

Keyboard: 99 keys; numeric keypad; 16 user-definable keys

Terminal display: 80 characters, 24 lines; or 132 characters, 60 lines

Ports: Two RS-232 serial, up to 4 parallel

Special features: Wang-compatibility in keyboard design allows the Fortune 32:16 to run Wang word processing programs. With UNIX and a full megabyte of RAM, this computer is a professional's computer: a small business computer capable of expansion.

Maintenance and warranty: National dealer and representative network. Service on site and at authorized service centers.

Base price: $5,000; $10,000 with dual floppy drive and 10MB rigid disk

Address: Fortune Systems Corp., 1501 Industrial Road, San Carlos, CA 94070. (415) 595-8440

Franklin Ace 1000

Operating system: AppleDOS; CP/M optional

Microprocessor: 6502, 8-bit (Z80, 8-bit, with CP/M)

RAM: 64K (128K for upgraded ACE 1200)

Storage system: One or two 5¼" floppy disk drives, 128K each

Keyboard: 72 keys; numeric keypad; 2 special keys; VisiCalc keys

Terminal display: 40 characters, 25 lines; monitor not included in basic package

Ports: Game slots, other slots for peripherals; serial and parallel cards optional

Special features: The Ace is (or was, until losing a court battle in 1984) the winner in the Apple-compatibility contest. The operating system, ACE-DOS, is basically AppleDOS, so the ACE can run most of the thousands of programs available for the Apple. A peripheral 80-column card can expand the terminal display (as with the Apple II).

Maintenance and warranty: Sold and serviced by a national dealer network, including ComputerLand outlets. 90-day warranty.

Base price: $2,295 (with software, but no monitor)

Address: Franklin Computer Corp., 2128 Route 38, Cherry Hill, NJ 08002. (609) 482-5900

GMR Small One

Operating system: GMR/OS (CP/M- and CDOS-compatible)

Microprocessor: Z80, 8-bit

RAM: 64K, expandable to 256K

Storage system: One 5¼" drive, from 170K to 1MB; 5MB to 60MB rigid disk drive optional

Keyboard: Detachable, 77 keys; 6 special user-definable keys; ASCII code set

Terminal display: 80 characters, 24 lines

Ports: Two RS-232 serial, 2 parallel

Special features: Since 1977, the Small One has quietly sold by word of mouth, mostly to the U.S. government and the European market. This is an effective portable that can be quite powerful: up to 60MB of storage are available ($8,500).

Maintenance and warranty: Diagnostic monitor points out problems. 90-day warranty. Factory service only.

Base price: SM-1 system (with floppy disk drive), $5,500

Address: GMR Inc., 1048 East Burgrove Street, Carson, CA 90746. (213) 639-4663

Grid Compass Computer

Operating system: CCOS

Microprocessor: 8086, 16-bit

RAM: 256K, with additional 256K bubble memory

Storage system: Optional floppy disk and rigid disk drives

Keyboard: 57 keys

Terminal display: 53 characters, 24 lines

Ports: Three RS-232 serial

Special features: The Compass Computer is intended to be a business workstation. It is a unique configuration: a portable computer with a flat screen display and nonvolatile bubble memory (i.e., memory is not lost when power is interrupted). This is a manager's computer, taking up little space on a desk and offering a large amount of computing power (but no common OS). A programmer's (but perhaps not a user's) machine.

Maintenance and warranty: Regional sales offices in metropolitan areas. No dealers; company will sell direct to customers and maintain machines.

Base price: $8,150 (floppy disk drives); $11,900 (5MB rigid disk)

Address: Grid Systems Corp., 2535 Garcia Avenue, Mountain View, CA 94043. (415) 961-4800

Hewlett-Packard 86B and 87

Operating system: HP; CP/M, UCSD optional

Microprocessor: Custom, 8-bit

RAM: 60K, expandable to 572K

Storage system: Two 3½" floppy drives

Keyboard: 91 keys; numeric keypad; 14 user-definable keys, 7 function keys

Terminal display: 80 characters, 16 or 24 lines

Ports: Serial and parallel

Special features: HP BASIC is provided with all Hewlett-Packard micros. Because this version of BASIC is well-known for its engineering and scientific value (including, for instance, graphic commands and integer variables), the HP 80 series is a winner in the engineering/mathematical microcomputer market. Not a first-time user's computer.

Maintenance and warranty: Training, 8 days of classroom education, $1,200. Software support available at $25 per month. Many service options, including a guarantee of technical/service support within 24 hours of a call to HP's 800 number. Equipment can be returned to dealer within 1 week of purchase with full reimbursement to buyer.

Base price: $2,900

Address: Hewlett-Packard Co., 1820 Embarcadero Road, Palo Alto, CA 94303. (415) 857-1501

Hewlett-Packard HP-16

Operating system: HP

Microprocessor: 68000, 16-bit

RAM: 128K, expandable to 768K

Storage system: Two 5¼" single-density disk drives, 270K each; two 5¼" double-density disk drives, 540K each; two 3½" single-density drives, 270K each; or one 4.6MB rigid disk drive

Keyboard: Detachable, 71 keys; 10 special function key commands, 17 system-command keys; cursor control knob for moving cursor quickly across the screen

Terminal display: 80 characters, 25 lines

Ports: RS-232 serial, IEEE-488 (HP-1B version) parallel (for connecting several pieces of hardware ["daisy-chaining"] on one port)

Special features: If the HP 80 series is for engineers and technicians, the HP-16 is a technician's dream. The HP's 16-bit processor is fast (in one test, 5 times faster than the IBM PC).

Maintenance and warranty: Many service options; 24-hour guaranteed service after any service call. Training and support available. 800 number for customer service and support.

Base price: $4,000; typical system is usually about $10,000

Address: Hewlett-Packard Co., 1820 Embarcadero Road, Palo Alto, CA 94303. (415) 857-1501

M/A-COM Keymate C-100

Operating system: OS-65D Disk Operating System

Microprocessor: 6502, 8-bit

RAM: 48K

Storage system: One 5¼" drive, 80K

Keyboard: 53 keys

Ports: Two RS-232 connectors; 48-line parallel card optional

Special features: Many I/O interfaces are available for the Keymate. It is designed to function both as a first-time user standalone or as a terminal in an M/A-COM network.

Maintenance and warranty: Service provided by the factory and a network of dealers.

Base price: $3,000

Address: M/A-COM Office Systems Inc., 1333 South Chillicothe Road, Aurora, OH 44202. (216) 562-2020

M/A-COM Masterkey Single User System (220 Series)

Operating system: Keyware OS-65U Advanced Operating System; CP/M, UCSD optional

Microprocessor: 6502, 8-bit

RAM: 48K

Storage system: One 8" drive, 256K; 1 rigid drive, 7.3MB

Keyboard: 87 keys

Ports: RS-232 serial, parallel printer port

Special features: The 220 is designed to be a member of a small business multi-user system. It can also be used as a workstation in a larger network. The upgraded 230 series uses a dual microprocessor (6502, Z80) to allow an optional CP/M operating system.

Maintenance and warranty: Service provided by the factory and a network of dealers.

Base price: 220, from $3,500 to $7,500; 230, from $5,000 to $8,500

Address: M/A-COM Office Systems Inc., 1333 South Chillicothe Road, Aurora, OH 44202. (216) 562-2020

Monroe EC8800

Operating system: Monroe Operating System; CP/M optional

Microprocessor: Z80, 8-bit

RAM: 128K

Storage system: One 5¼" drive, 320K

Keyboard: 93 keys; numeric keypad; cursor control keys;
8 user-definable keys

Terminal display: EC (Educational Computer), 40 characters,
24 lines; OC (Office Computer), 80 characters,
24 lines

Ports: Three RS-232 serial

Special features: Advanced graphic and sound capabilities.
The EC is targeted primarily for the educational
market.

Maintenance and warranty: Dealer network and service offices.
90-day warranty. Maintenance agreements are available.

Base price: $3,300

Address: Monroe Systems for Business, The American Road, Morris
Plains, NJ 07950. (201) 993-2612

MTU-130

Operating system: CODOS; CP/M optional

Microprocessor: 6502, 8-bit

RAM: 80K, expandable to 1.3MB

Storage system: Two 8" drives, 1MB each

Keyboard: 96 keys; numeric keypad; 4 cursor control keys; 8 user-definable function keys

Terminal display: 80 characters, 25 lines

Ports: One RS-232 serial, 2 parallel, 8-bit audio port, network interface

Special features: Because of system architecture, this computer is faster than many 16-bit machines. A sophisticated system with huge external storage (2MB, using 2 disk drives), the MTU also offers an optional utility that transfers information stored on CP/M or IBM disks to MTU format.

Maintenance and warranty: Service provided through factory.

Base price: $3,900

Address: Micro Technology Unlimited, Box 12106, 2806 Hillsborough Street, Raleigh, NC 27605. (919) 833-1458

Radio Shack Model 4

Operating system: TRSDOS; CP/M optional

Microprocessor: Z80, 8-bit

RAM: 64K, expandable to 128K

Storage system: Two 5¼" drives, 184K each; expandable to up to four 5¼" drives or up to 4 rigid disk drives, 5MB each

Keyboard: 70 keys; numeric keypad; cursor control keys; 3 user-definable keys

Terminal display: 80 characters, 24 lines

Ports: One RS-232 serial, 1 parallel

Special features: An upgrading of the Model 3, the Model 4 is more powerful and is capable of easily handling CP/M software with the addition of a $200 software package. All Model 3 programs run on the Model 4.

Maintenance and warranty: Through the 7700 Radio Shack retail outlets and over 250 Computer Centers.

Base price: $2,000

Address: Radio Shack/Tandy Corp., 1600 One Tandy Center, Fort Worth, TX 76012. (817) 390-3111

Wicat System 150

Operating system: MCS; CP/M, UNIX optional

Microprocessor: 68000, 32-bit (16-bit data transfer)

RAM: 256K, expandable to 1.5MB

Storage system: 150FS system, two 5¼" drives, 960K each; 150WS, 150-3, and 150-6 systems, one 5¼" drive, 960K, and one 10MB rigid disk drive

Keyboard: Detachable, 94 keys; numeric keypad; 4 user-definable function keys

Terminal display: 80 characters, 24 lines

Ports: 150FS and 150WS systems, 1 RS-232 serial, 1 parallel; 150-3 system, 2 serial, 1 parallel; 150-6 system, 5 serial, 1 parallel

Special features: The Wicat is expandable from a single-user standalone to a microcomputer network serving up to 6 users. The microprocessor processes information in 32-bit chunks, though moving it 16 bits at a time. That 32-bit processing makes for an extremely fast machine at a relatively good price.

Maintenance and warranty: Service and sales directed through regional offices in New York, Chicago, and San Francisco.

Base price: System 150FS, $6,900

Address: Wicat Systems Inc., 1875 South State Street, Box 539, Orem, UT 84057. (801) 224-6400

Part II Word Processing Software

There are hundreds of word processing programs on the market. Selecting software will be based, in part, on the operating system the software needs in order to run. But other considerations are equally as important: What has your typesetter interfaced with, how many users in your area can you ask for advice, and how good is the documentation? This section on word processing software is presented, as with hardware, according to operating systems. The first section includes those programs that can be run on several operating systems. Sections that follow cover specific operating systems, such as AppleDOS, TRSDOS, and so on.

Multisystem Software

Software	Operating Systems Supported	Minimum Memory	Price	Manufacturer
AutoWriter	CP/M, MS-DOS	64K	$550	BOS Software
Benchmark	CP/M, MS-DOS, GDOS, CP/M-86	128K	$500	Metasoft
DataText	CP/M, MS-DOS	96K	$450	Datatek
Final Word	CP/M, MS-DOS, VEDIX, CP/M-86	128K (recommended)	$300	Mark of the Unicorn
Palantir	CP/M, MS-DOS, TurboDOS, CP/M-86	64K	$450	Designer Software
Perfect Writer	CP/M, MS-DOS	64K	$500	Intersil Systems
PIE:Writer	AppleDOS	48K	$150	Hayden Software
PIE:Writer	MS-DOS	64K	$200	Hayden Software
Spellbinder	CP/M, HDOS, MS-DOS, CP/M-86, TurboDOS, Oasis	32K	$500	Lexisoft
Star-Edit	CP/M, MS-DOS, CP/M-86, ZDOS	32K	$225	SuperSoft
SuperWriter	CP/M, MS-DOS, CP/M-86, MP/M	64K	$295	Sorcim
Vedit	CP/M, MS-DOS, CP/M-86, MP/M	16K	$150	CompuView
Volkswriter	CP/M, MS-DOS	64K	$195	Lifetree
WES	CP/M, MS-DOS, TurboDOS, CP/M-86	42K	$295	Westerly Business Systems
Word Wizard	AppleDOS, Commodore OS, Atari OS	16K	$150	DataSoft
Word Worker	MS-DOS, TRSDOS	32K	$ 30	Design Enterprises of San Francisco
WordStar	CP/M, MS-DOS, CP/M-86	64K	$495	MicroPro

MS-DOS Software

Software	Minimum Memory	Price	Manufacturer
Big Ed	256K, 1 drive	$125	Irohnic Systems
BITS WP System	64K, 2 drives	$300	Boeing Computer Services
Blue	64K, 1 drive	$150	Symmetric Software
Busi-Text	64K, 1 drive	$ 80	Transaction Systems
Dillowriter	64K, 1 drive	$ 30	Software Research
EasyWriter	64K, 1 drive	$175	IBM
EasyWriter II	64K, 2 drives	$350	Information Unlimited
Editor	128K, 1 drive	$ 75	Sunshine Computer Software
EDIX + WORDIX	128K, 1 drive	$390	Emerging Technology
Edvance	64K, 1 drive UCSD OS	$200	SofTech Microsystems
EinsteinWriter	128K, 1 drive	$400	Einstein Corp.
ETWedit	64K, 1 drive	$ 75	ETW Systems
Executive Secretary Word Processing	128K, 1 drive	$295	Sof/Sys
Execu/Writer	128K, 2 drives	$450	Executec Corp.
EZMemo +	64K, 2 drives	$ 50	Systemics
Final Copy	64K, 1 drive	$890	TICOM Systems
Forthwrite	64K, 2 drives, MMSFORTH OS	$175	Miller Microcomputer Services
Friendly Writer	64K, 1 drive	$ 70	FriendlySoft
Good Words	128K, 1 drive	$100	Oak Tree Computing
IEdit	64K, 1 drive	$120	Innovative Technology
Leading Edge	128K, 2 drives	$300	Leading Edge Products
Megawriter	64K, 2 drives	$ 60	Megahouse
MemoPlan	128K, 2 drives	$195	Chang Laboratories

Software	Minimum Memory	Price	Manufacturer
Microsoft Word	128K, 1 drive	$375	Microsoft
MultiMate	128K, 2 drives	$495	Softword Systems
Muse	256K, 1 MB rigid disk	$595	MARC Software International
Quick-Text	128K, 1 drive	$ 55	Distributed Software Systems
P-Edit	64K, 1 drive	$ 95	Satellite Software
PC Word	64K, 1 drive	$ 95	Single Source Solutions
PeachText	64K, 1 drive	$400	IBM and PeachTree Software
Personal Editor	64K, 1 drive	$199	IBM
Personal WordPerfect	128K, 1 drive	$195	Satellite Software
pfs:write	128K, 1 drive	$140	Software Publishing
PowerText	64K, 2 drives	$399	Beaman Porter
ProofWriter	128K, 1 drive	$195	Image Processing Systems
Quick Brown Fox	64K, 1 drive	$ 65	Dwo Quong Fok Lok Sow
Rainbow Writer	64K, 1 drive	$149	Application Techniques
ReadiWriter	128K, 1 drive	$125	ReadiWare Systems
ReportStar	64K, 1 drive	$350	MicroPro
Samna Word II	192K, 1 drive	$450	Samna
Scribble	48K, 1 drive	$175	Mark of the Unicorn
Script	64K, 1 drive	$190	Harper Business Systems
Scriptron	128K, 2 drives	$895	Tronware
Select	128K, 2 drives	$495	Select Information Systems
Textplus	128K, 1 drive	$149	Owl Software
Textra Jr.	64K, 1 drive	$ 40	Ann Arbor Software
Versa Text	128K, 2 drives	$200	TexaSoft

Software	Minimum Memory	Price	Manufacturer
VisiWord	128K, 1 drive	$375	VisiCorp
Word Plus	164K, 1 drive	$150	Oasis Systems
Word Worker	48K, 1 drive	$ 30	Design Enterprises of San Francisco
WordCraft	128K, 1 drive	$395	Cimarron
WordEase	128K, 2 drives	$295	Software Solutions
WordExec	128K, 1 drive	$495	Ferox Microsystems
Wordflex	128K, 1 drive	$140	NEMCO
Wordplus-PC	64K, 1 drive	$395	Professional Software
Wordvision	64K, 1 drive	$ 50	Bruce & James
Write-On!	64K, 1 drive	$130	Datamost
XyWrite II	128K, 1 drive	$195	Xyquest

AppleDOS Software

Software	Minimum Memory	Price	Manufacturer
Apple Writer	128K	$195	Apple
Bank Street Writer	48K	$ 70	Broderbund
Correspondent	48K	$ 50	Southwestern Data
Format II	64K	--	Kensington Micro
Great Creator	48K	$400	Gessler Publishing
Higher Text II	32K	$ 40	Synergistic Software
Incredible Jack	16K	$179	Business Solutions
Magic Window II	48K	$150	Artsci
Megawriter	64K	$ 60	Megahouse
Pen Pal	48K	$ 60	Howard W. Sams
Screenwriter	48K	$200	Sierra On-Line
Script II	48K	--	Apple
Script III	128K	--	Apple
Script Wizard	48K	--	Datasoft
Super-Text	48K	$125	Muse Software
Type-Writer	48K	$ 70	Gessler Publishing
Word Handler	48K	$199	Silicon Valley
Word Weaver III	225K	$100	Synergistic Software

TRSDOS Software

Software	Minimum Memory	Price	Manufacturer
Ambiz-Pak	48K, 2 drives	$150	Blechman Enterprises
Clean Slate	32K, 1 drive	$ 80	Howard W. Sams
CTW	Cassette tape	$ 20	Bluebird's Computer Software
Scripsit	48K, 1 drive	$400	Radio Shack
Super Scripsit	48K, 1 drive	$200	Radio Shack
Word-V	48K, 1 drive	$ 80	Micro Architect
Wordslinger	16K, no drive	$ 30	Instant Software
Writsit	48K, 1 drive	$ 60	Mailit Bristow Computers

Commodore OS Software

Software	Minimum Memory	Price	Manufacturer
Copy-Writer	64K, 1 drive	$145	CGRS Microtech Inc.
Easy Script	64K, 1 drive	--	Commodore
Heswriter 64	64K, 1 drive	$ 45	Human Engineered Software
MAE-Macro Editor	64K, 1 drive	$169	CGRS Microtech Inc.
Program Package	64K, 1 drive	$ 25	Baker Enterprises
Wordcraft	96K, 1 drive	$395	Commodore

Proprietary Software

Computer	Software	Minimum Memory	Price	Manufacturer
Atari	Atari WP	16K, 1 drive	$ 150	Atari
Atari	Letter Writer	24K, 1 drive	$ 20	CE Software
Billings	Word Master	64K, 1 drive	$ 300	Billings Computer
Corvus	EdWord	256K, 1 drive	--	Corvus
Cromemco	WPS-S-L	64K, 1 drive	--	Cromemco
Digital	NPL Report Generator	256K, 1 drive	$1,500	Digital
Digital	Select	64K, 1 drive	$ 595	Digital
Fortune	Word Processing	128K, 1 drive	$ 495	Fortune
Grid	Gridwrite	256K, 1 drive	$ 940 (package)	Grid
Hewlett-Packard	Documate	16K, 1 drive	$ 395	Applied Micro Systems
Hewlett-Packard	Write-Idea	16K, 1 drive	$ 250	Threshold Software
Monroe	Super-Word	64K, 1 drive	--	Monroe
NEC	Electric Pencil	16K, cartridge	$ 70	NEC Home Electronics
NorthStar	NorthWord	64K, 1 drive	$ 499	NorthStar
NorthStar	DOC	64K, 2 drives	$ 150	Omni Software
Vector Graphic	Memorite	128K, 1 drive	$ 450	Vector Graphic
Victor	Victor Writer	128K, 1 drive	$ 645	Victor Technologies
Xerox	Formation	64K, 1 drive	--	Software Concepts
Zenith	PIE 1.5	48K, 1 drive	$ 30	Software Toolworks

Part III Interfacing Hardware

There are three types of interfacing requiring specific hardware: media conversion, optical character recognition, and telecommunications. The latter is the only one of the three methods that requires both the receiver and the sender to purchase equipment: the modem. The following tables are separated according to interfacing method. The last and longest table is a survey of the many modems available today.

Media Converters

Manufacturer/Product	Drives	Software Cost	Telecommunications Available	Hardware Base Price
Altertext/System I	8", 5-1/4"	$1,000 each	Yes	$13,000
Altertext/System II	Two 8", two 5-1/4"	$1,000 each	Yes	$20,000
Antares/Antares WP Data Conversion System	8", 5-1/4", mag tape, cassette, and 3-1/2" available	50 programs included in base price	Yes	$55,000
Applied Data Communications/ TransMedia 500	8", 5-1/4", mag tape, mag cards	$500-$1,000 (six included in base price)	Yes	$15,800
Compugraphic/Word Com MC	8"	Specific applications: IBM mag cards, Redactron cards, and Vydec disks to EditWriter screen	No	--
Cromwell/Context IV	8", 5-1/4"	80+ included in base price ($25 fee, each)	No	$ 6,000 (primarily CP/M machines)
Itek (Baber)/ MultiDisk Reader	8", 5-1/4"	$800 each	Yes	$11,500
Shaftstall/ MediaCom 5000	8", 5-1/4"	$1,800 for first two; $1,530 for third; further discounts	Yes	$14,250

Optical Character Readers

Manufacturer/Product	Typefaces Read	Features	Interface w/Output
AM/ECRM 4000 & 5300	Courier 72, OCR-A, OCR-B, Perry, Courier 12, Prestige Elite	Programmable for font recognition	Hardwire or paper tape
Burroughs/Context	OCR-A, OCR-B, and others	Several models available: 210, 310, and 1205	Hardwire or paper tape
Compugraphic/Word Com SI	PP3	SI is peripheral for EditWriter phototypesetter; data is read directly onto screen and then disk	Hardwire
CompuScan/Alpha Word	OCR-A, OCR-B, Perry, Prestige Elite	Reads at speeds up to 300 pages/ hour	Hardwire or paper tape
Dest Data/Word Scanner	Programmable: can read up to 4 typefaces at one time	Optional terminal for previewing results of OCR	Hardwire
Hendrix/Typereader	All common OCR typefaces and some typesetting faces	Automatic entry to either word processor or phototypesetter	Hardwire
Kurzweil/KDEM & 4000	Omnifont: able to read any typeface	Omnifont capability combined with multiple applications: legal, publishing, manuals	Hardwire, magnetic media, or paper tape

Telecommunications Devices

Manufacturer/Product	Typesetters Supported	Two-Way Communi-cations	Protocols/Translations	User-Modifiable Tables
Alphatype/Interface Option	Alphatype	No	Converts Xerox 800 wp to Alphacomp	Yes
Alphatype/AlphaKey Systems Interface Option	Alphatype	No	Universal	Yes
AM/AMtext 425 Conversion Option	AM	No	Converts AM 425 wp data to AM Comp/Set or AM Comp/Edit media	Yes
AM/Comp/Set Telecom Option	AM Comp/Set	No	Asynch	Yes
AM/Comp/Edit Telecom Option	AM Comp/Edit	Yes	Universal	Yes, by AM personnel
Autologic/ICI	APS-19, APS-5, Micro 5 systems	No	Universal	Yes
Compugraphic/Word Com VI	Compugraphic EditWriter terminal	No	Moves IBM, Xerox, Wang, Vydec, and Lanier information to Editwriter 1750 terminal	No
Compugraphic/ICI	Compugraphic EditWriter	No	Synch and Asynch	Yes
Compugraphic/ACI	Compugraphic MCS and Quadex	No	Universal	Yes
Cybertext/TRS-80 Option	Compugraphic CompuWriter	No	Moves information from TRS-80 wp to CompuWriter	Yes
Cybertext/CP/M Option	Compugraphic CompuWriter	No	Moves information from CP/M wp to CompuWriter	Yes
EE Text/UPT	EE Text	No	Software included: 128 translation tables	Yes

Manufacturer/Product	Typesetters Supported	Two-Way Communi-cations	Protocols/Translations	User-Modifiable Tables
Electronic Information Technology/ EIT Telecom	EIT	No	Universal	Yes
G. O. Graphics/ CW/CI	Compugraphic CompuWriter	No	Universal	Yes
G. O. Graphics/ EditWriter ICI	Compugraphic EditWriter	No	Universal	Yes
G. O. Graphics/Comp/ Edit Interface	AM Comp/Edit	Yes	Universal	Yes
G. O. Graphics/ MDT 350 Interface	Compugraphic MDT 350 Terminals	No	Asynch and synch	Yes
G. O. Graphics/ Multicom WP Interface	AM Comp/Edit, Comp/Set	Yes	Universal	Yes
G. O. Graphics/ Multicom 350 Interface	Compugraphic Advantage, TrendSetter, UniSetter	No	Universal	Yes
GTCO/Model 3000	All	No	Moves IBM cassette information to paper tape readable by typesetter	No
GTCO/Model 4000	All	No	Moves IBM mag card information to paper tape readable by typesetter	No
Information Design/ Series 1000	AM Comp/Edit, Comp/Set	No	Universal	Yes
Intergraphic/ InterCom 100	All	No	Universal	Yes
Itek/DCI	Itek Quadritek	No	Universal	Yes
Mergenthaler/WPI	Mergenthaler Omnitech	No	Asynch and synch	Yes

Manufacturer/Product	Typesetters Supported	Two-Way Communi-cations	Protocols/Translations	User-Modifiable Tables
Mergenthaler/Telecom Option	Mergenthaler CRTronic	No	Asynch and synch	Yes
Microsystems Intl./ MDC Telecommuni-cations Option	MDC terminal (compatible with Compu-graphic MDT)	No	Universal	Yes
MicroText Systems/ Telecommunications	AM Comp/Set	Yes	Universal	Yes
Penta Systems/ PentaLink	Penta Front End Systems	Yes	Telecommunications plus the Shaftstall media converter	Yes
Phoenix Services/ PII	All	Yes	Not specific, but all code sets	Yes
Quadex/Interface Option	Quadex	No	Moves information from DEC and 3M disks to Quadex	Yes
Quadex/Communication Option	Quadex	No	Universal	Yes
Racal Telesystems Network/Protocol Translater	All	No	Translates up to 10 different wp code sets at one time	Yes
Shaftstall/2100-CDI	AM Comp/Set	--	Translates up to 20 different wp code sets at one time	Yes
Shaftstall/2300-MDI	All	No	Translates up to 20 different wp code sets at one time	Yes
Shaftstall/5800-CEI	AM Comp/Edit	--	Translates up to 20 different wp code sets at one time	Yes
Shaftstall/7700-EDI	Compugraphic EditWriter	No	Translates up to 20 different wp code sets at one time	Yes

Manufacturer/Product	Typesetters Supported	Two-Way Communi-cations	Protocols/Translations	User-Modifiable Tables
Shaftstall/MP 202	Mergenthaler Linotron	No	Translates up to 20 different wp code sets at one time	Yes
Teletypesetting/ Microsetter	Compugraphic CompuWriter	No	Allows Apple wp to move data to CompuWriter	Yes
Typecraft/Front End	Compugraphic EditWriter; Mergenthaler VIP or 202	No	Allows Commodore wp to move data to various phototypesetter output units	Yes
Wang/Interface Translator	Wang	No	Allows Wang input for output on Wang 44 and 48 photo units	--

Modems

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Anchor Automation/ Signalman MK 1	103	0-300	Asynch	Auto send	Full-duplex	$ 99
Astrocom 1100 & 1100A	Acoustic coupler	0-300	Asynch	Send only (1100) Both (1100A)	Half-duplex/ full-duplex	$ 198 (1100) $ 250 (1100A)
Astrocom 1300	103	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 385
Astrocom 212	212A	300-1200	Asynch/ Synch	Both	Half-duplex/ full-duplex	$ 795
Bizcomp 1012	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 895
Bizcomp 1022	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 349
Bizcomp 1080 VersaModem	103	0-300	Asynch	Send only	Full-duplex	$ 139
Bizcomp 1031	103	0-300	Asynch	Auto send	Full-duplex	$ 395
Bizcomp 2120 PC: Intellimodem	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 499
Bytcom 212 AD	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 695
Codex 5103 & 5113R	103	0-300	Asynch	Both (5103) Answer only (5113)	Half-duplex/ full-duplex	$ 595 (5103) $ 475 (5113)
Codex 5202	202	0-1200	Asynch	Auto send	Half-duplex/ full-duplex	$ 670
Codex 5212R	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 695
Datec 30	Acoustic coupler	0-300	Asynch	Send only	Half-duplex/ full-duplex	$ 225

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Datec 32	Acoustic coupler	0-300	Asynch	Send & answer	Half-duplex/ full-duplex	$ 250
Datec 33	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 219
Datec 33C	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 199
Datec 212A	212	0-300, 1200	Asynch/ Synch	Auto send	Half-duplex/ full-duplex	$ 795
DEC DF02-AA	103	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 450
DEC DF02-AC	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 925
DEC DF03-AA	212A	0-300, 1200	Asynch/ Synch	Both	Half-duplex/ full-duplex	$ 950
DEC DF03-AC	212A	0-300, 1200	Asynch/ Synch	Auto send	Half-duplex/ full-duplex	$1,350
ESI Lynx--Apple	103	300	Asynch	Auto send optional, answer	Half-duplex/ full-duplex	$ 290
ESI Lynx--TRS-80	103	300	Asynch	Auto send	Half-duplex/ full-duplex	$ 300
General Datacom 103 J-L	103	300	Asynch	Send & answer	Full-duplex	$ 200
General Datacom 103 J-M	103	300	Asynch	Auto answer	Full-duplex	$ 250
General Datacom 113 C	103	300	Asynch	Send only	Full-duplex	--
General Datacom 212A & 212M	212A	0-300, 1200	Asynch/ Synch	Send & answer	Full-duplex	$ 810 (212A) $ 880 (212M)
Hayes Micromodem II	103	110, 300	Synch	Auto send	Half-duplex/ full-duplex	$ 379

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Hayes Micromodem 100	103	45-300	Asynch	Send & answer	Half-duplex/ full-duplex	$ 399
Hayes Smartmodem 300	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 289
Hayes Smartmodem 1200	212A	0-300, 1200	Asynch/ Synch	Auto send	Half-duplex/ full-duplex	$ 699
Lexicon LEX-11	Acoustic coupler	300	Asynch	Send & answer	Half-duplex/ full-duplex	$ 160
Lexicon LEX-12	103 or acoustic coupler	300	Asynch	Send & answer	Half-duplex/ full-duplex	$ 200
MFJ Enterprises 1230	Acoustic coupler	0-300	Asynch	Send & answer	Half-duplex/ full-duplex	$ 130
Microcom PCS/300	103	0-9600	Synch	Auto send	Half-duplex/ full-duplex	$ 595
Microcom PCS/1200	212A	0-9600	Asynch/ Synch	Auto send	Half-duplex/ full-duplex	$ 995
Microcom RX/300	103	0-9600	Asynch	Auto send	Half-duplex/ full-duplex	$ 495
Microcom RX/1200	212A	0-300, 1200	Asynch/ Synch	Auto send	Half-duplex/ full-duplex	$ 995
Microperipheral AutoPrint	103	300	Asynch	Auto send	Half-duplex/ full-duplex	$ 149
Mura MM-100	103	0-300	Asynch	Both	Full-duplex	$ 99
Novation Apple Cat II	212A	0-1200	Asynch	Auto send	Half-duplex/ full-duplex	$ 389
Novation Auto-Cat	103	0-300	Asynch	Send & auto answer	Half-duplex/ full-duplex	$ 249
Novation 212 Auto-Cat	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Half-duplex/ full-duplex	$ 695

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Novation Cat Acoustic	Acoustic coupler	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 189
Novation D-Cat	103	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 199
Novation 4202B	202	1200	Asynch	Send & auto answer	Half-duplex/ full-duplex	$ 569
Omnitec Data 710H	Acoustic coupler	0-450	Asynch	Send only	Full-duplex	$ 235
Omnitec Data 715	Acoustic coupler	0-450	Asynch	Send only	Full-duplex	$ 125
Omnitec Data 716H	Acoustic coupler	600	Asynch	Send only	Full-duplex	$ 333
Omnitec Data 736	Acoustic coupler	0-450	Asynch	Send only	Full-duplex	$ 195
Omnitec Data 770	Acoustic coupler	300	Asynch	Both	Full-duplex	$ 179
Omnitec Data 772H	Acoustic coupler	0-450	Asynch	Both	Full-duplex	$ 336
Omnitec Data 4500	Teletype mount	110-300	Asynch	Direct	Full-duplex	$ 862
Omnitec Data 4543	Teletype mount or 103	110-300	Asynch	Direct	Full-duplex	$ 862
Omnitec Data 4600	Teletype mount or 103	110-300	Asynch	Direct	Full-duplex	$ 881
Omnitec Data 4643	Teletype mount or 103	110-300	Asynch	Direct	Full-duplex	$ 881
Omnitec Data 4700	Teletype mount or 103	110-300	Asynch	Direct	Full-duplex	$ 899

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Omnitec Data 4900	Teletype mount or 103	110-300	Asynch	Direct	Full-duplex	$ 952
Omnitec Data 9123AD	103	300	Asynch	Auto answer	Full-duplex	$ 225
Omnitec Data 9113B	103	0-300	Asynch	Auto answer	Full-duplex	$ 380
Omnitec Data 9113BO	103	0-300	Asynch	Auto send	Full-duplex	$ 499
Omnitec Data 9113BO-1	103	0-300	Asynch	Auto send	Full-duplex	$ 599
Omnitec Data 9113BOD	103	0-300	Asynch	Send & auto answer	Full-duplex	$ 585
Omnitec Data 9113BOD-1	103	0-300	Asynch	Auto send	Full-duplex	$ 693
Omnitec Data 9113BD	103	0-300	Asynch	Auto answer	Full-duplex	$ 477
Omnitec Data 9202BOD	202	1200	Asynch	Send & auto answer	Half-duplex	$ 671
Omnitec Data 9212AO	212A	300-1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 724
Omnitec Data 9212AOD	212A	300-1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 785
Penril Data Comm 300-1200	212A	300-1200	Asynch/ Synch	Auto send	Full-duplex	$ 850
PMMI Communication Potomac MicroMagic MM103	103	60-600	Asynch	Both	Full-duplex	$ 400
Prentice P-103J	103	0-300	Asynch	Send & auto answer	Half-duplex/ full-duplex	$ 470

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Prentice P-113C	103	0-300	Asynch	Send & auto answer	Half-duplex/ full-duplex	$ 385
Prentice P-202S	202	1200	Asynch	Send & auto answer	Simplex/full-duplex/half-duplex	$ 455
Prentice P-212A	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 795
Prentice STAR	Acoustic coupler	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 199
Prentice Trimodem	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 850
Racal-Vadic 103 MB	103	300	Asynch	Both	Full-duplex	$ 300
Racal-Vadic 315 VA	103	0-300	Asynch	Auto send	Full-duplex	$ 375
Racal-Vadic 317 VA	103	0-300	Asynch	Send & auto answer	Full-duplex	$ 250
Racal-Vadic 355 VA	103	0-300	Asynch	Both	Full-duplex	$ 375
Racal-Vadic 1240 VA	212A	0-300, 1200	Asynch/ Synch	Both	Half-duplex/ full-duplex	$ 290
Racal-Vadic 2440 VA	202	1200	Synch	Auto send	Half-duplex	$ 575
Racal-Vadic 3413/12 VA	Acoustic coupler	0-1200	Asynch/ Synch	Send	Full-duplex	$ 895
Racal-Vadic 3451 VA	212A	0-1200	Asynch/ Synch	Both	Full-duplex	$ 900
Racal-Vadic 3455 VA	212A	1200	Synch	Both	Full-duplex	$ 775
Racal-Vadic 3467 VA	212A	0-1200	Asynch/ Synch	Answer	Full-duplex	$ 850
Racal-Vadic 3481 VA	212A	1200	Asynch/ Synch	Auto send	Full-duplex	$ 950

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Racal-Vadic 300 VS	103	300	Asynch	Both	Full-duplex	$ 210
Racal-Vadic 1200 VS	202	1200	Asynch	Both	Half-duplex	$ 210
Rixon LDM 710	Hardwire	0-9600	--	Both	Null modem	--
Rixon T103J	103	0-300	Asynch	Auto send	Full-duplex	$ 595
Rixon T113C	103	0-300	Asynch	Both	Full-duplex	$ 445
Rixon T202S	202	0-1200	Asynch	Auto send	Half-duplex	$ 595
Rixon T212A	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 895
Rixon TA212A	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 795
Tandy Direct Connect Modem I	103	0-300	Asynch	Both	Full-duplex	$ 149
Tandy Direct Connect Modem II	103	0-300	Asynch	Auto send	Half-duplex/ full-duplex	$ 249
Tandy Telephone Interface II	Acoustic coupler	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 199
Tandy TRS-80 DC-1200	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Half-duplex/ full-duplex	$ 699
TNW 188/103	103	300	Asynch	Auto send	Half-duplex/ full-duplex	$ 389
Universal Data Systems 103LP, 103LPJ, 103J, 113D	103	0-300	Asynch	Send & auto answer	Full-duplex	$ 195-450
Universal Data Systems 292 SLP	202	0-1200	Asynch	Auto answer	Half-duplex	$ 295
Universal Data Systems 202S, 202D	202	0-1200	Asynch	Auto answer	Half-duplex	$ 515

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Universal Data Systems 202S/SS	202	0-1200	Synch	Auto answer	Half-duplex	$ 550
Universal Data Systems 202S5	202	0-1200	Asynch	Auto answer	Half-duplex	$ 590
Universal Data Systems 212A	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 900
Universal Data Systems 212 LP	212A	0-300, 1200	Asynch/ Synch	Both	Full-duplex	$ 495
U.S. Robotics Autodial 212A	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 599
U.S. Robotics Autolink 212A, 1200	212A	0-300, 1200	Asynch/ Synch	Auto answer	Full-duplex	$ 499
U.S. Robotics Autolink 300	103	0-300	Asynch	Auto answer	Full-duplex	$ 269
U.S. Robotics Microlink 300	103	300	Asynch	--	Full-duplex	$ 239
U.S. Robotics Microprint 1200	212A	0-300, 1200	Asynch/ Synch	--	Half-duplex/ full-duplex	$ 449
U.S. Robotics Password	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 449
U.S. Robotics Phonelink	Acoustic coupler	0-300	Asynch	--	Full-duplex	$ 189
Ventel AC 103-1	Acoustic coupler	0-300	Asynch	Send	Half-duplex/ full-duplex	$ 245
Ventel AC 103-3	Acoustic coupler	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 270
Ventel MD 113-33	103	0-300	Asynch	Auto answer	Half-duplex/ full-duplex	$ 280
Ventel MD 113-43	103	0-300	Asynch	Send	Half-duplex/ full-duplex	$ 300

Manufacturer/Model	Bell Compatibility	Baud Rate	Asynch/ Synch	Send/ Answer	Transmission Mode	Price
Ventel MD 202-1	202	1200	Asynch	Send & auto answer	Half-duplex	$ 310
Ventel MD 202-2	202	1200	Asynch	Send & auto answer	Half-duplex	$ 380
Ventel MD 212-1	212A	0-300, 1200	Asynch/ Synch	Both	Full-duplex	$ 695
Ventel MD 212-2	212A	0-300, 1200	Asynch/ Synch	Both	Full-duplex	$ 625
Ventel MD 212-3	212A	0-300, 1200	Asynch/ Synch	Auto send	Full-duplex	$ 995
Ventel MD 212-4	212A	0-300, 1200	Asynch/ Synch	Both	Full-duplex	$ 925
Ventel MD 212-5 + 2	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$1,245
Ventel MD 212-E	212A	0-300, 1200	Asynch/ Synch	Send & auto answer	Full-duplex	$ 695
Zoom Networker	103	0-300	Asynch	Both	Half-duplex/ full-duplex	$ 119

Part IV Interfacing Software

As with word processing software, telecommunications programs are often written to be run on specific operating systems. The first table included here lists the generic communications packages available for more than one operating system. Following this table are the programs devoted to specific operating systems.

Multisystem Software

Software	Operating Systems Supported	Minimum Memory	Price	Manufacturer
Acculink	CP/M, CP/M-86, MS-DOS	64K, 1 drive	$245	IE Systems
Ascom	CP/M, CP/M-86, MS-DOS	64K, 1 drive	$175	Dynamic
Asynch Compac	CP/M-86, MS-DOS	64K, 1 drive	$125	Frontier Technologies
Benchmark	AppleDOS, CP/M, CP/M-86, GDOS, MS-DOS, TRSDOS	96K, 1 drive	$150	Metasoft
Bisynch Compac	CP/M-86, MS-DOS	64K, 1 drive	$695	Frontier Technologies
COAXXSYS	CP/M, CP/M-86, MS-DOS	64K, 1 drive	$200	Micro Integration
CommTalk	CP/M-86, MS-DOS	92K, 1 drive	$ 90	Professional Software
CONSOLX	CDOS, CP/M, CP/M-86, MS-DOS, Turbodos	64K, 1 drive	$300	Hawkeye Grafix
CPL	CP/M, MP/M, MS-DOS	128K, 1 drive	$165	Cawthon
Crosstalk XVI	CP/M, CP/M-86, MS-DOS	96K, 1 drive	$195	Microstuf
CTL	CP/M, CP/M-86, MP/M, MS-DOS	64K, 1 drive	$175	Cawthon
EM80-86	CP/M-86, MS-DOS	64K, 1 drive	$ 95	Dynamic
ForthCom	MMSFORTH, MS-DOS, TRSDOS	32K, 1 drive	$ 40	Miller Micro
HDLC/SDLC Compac	CP/M-86, MS-DOS	128K, 1 drive	$695	Frontier Technologies
LogOn	MS-DOS, UCSD	128K, 1 drive	$150	Ferox
MicroLink III	CP/M, CP/M-86, MS-DOS	32K, 1 drive	$ 89	Digital Marketing
Modem-86	CP/M-86, MS-DOS	64K, 1 drive	$ 89	CompuView
Move-It	CP/M, CP/M-86, MP/M, MS-DOS	32K, 1 drive	$150	Woolf

Software	Operating Systems Supported	Minimum Memory	Price	Manufacturer
MTERM	AppleDOS, CP/M, MS-DOS, TRSDOS	32K, 1 drive	$ 80	MicroSystems
Reformatter CP/M:DEC	CP/M, CDOS, MP/M, SDOS	24K, 1 drive	$249	Microtech
Reformatter CP/M:IBM	CP/M, CDOS, MP/M, SDOS	32K, 1 drive	$249	Microtech
Reformatter CP/M-86:IBM	CP/M-86, MP/M-86	64K, 1 drive	$350	Microtech
Tele-talk	AppleDOS, CDOS	32K, 1 drive	--	Datasoft
TXL	CP/M, CP/M-86, MP/M, MS-DOS	64K, 1 drive	$350	Cawthon
X.25 Compac	CP/M-86, MS-DOS	64K, 1 drive	$795	Frontier Technologies

MS-DOS Software

Software	Minimum Memory	Price	Manufacturer
ACOM-300	64K, 1 drive, plus acoustic modem (300 baud)	$ 50	Allston Group
Apple-IBM Connection	64K, 1 drive	$195	Alpha Software
Asynch Communications	64K, 1 drive	$ 60	IBM
Auto-comm	128K, 1 drive	--	GKE
BIS-3270	80K, 1 drive	$695	IE Systems
Blast	64K, 1 drive	$250	Communication Research
BSTAM	64K, 1 drive	$150	Byrom
Communication Program	64K, 1 drive	$200	Arby
Communicator	96K, 1 drive	$125	Electronic Data
Data Capture/pc	54K, 1 drive	$120	Southeastern
DataLink	64K, 1 drive	$149	Link Systems
Direct.connect	96K, 1 drive	$145	Direct.aid
E-Mail	64K, 1 drive	$100	Jones Engineering
Genterm	64K, 1 drive	$ 80	Information Analysis
Hostcomm	128K, 1 drive, plus Hayes SmartModem	$170	Janadon
IBMCOM	192K, 1 drive	$195	RTCS
Icom	128K, 1 drive	$150	Smith Educational
Intellicom	56K, 1 drive	$ 50	Computer Toolbox
Intelliterm	128K, 1 drive	$150	MicroCorp
Intercom 100	64K, 1 drive	$ 99	Intercomputer
InterLync	128K, 1 drive	$149	Starside Engineering
LAN: Mail Monitor	192K, Corvus Rigid Disk	$750	Software Connections
Law Search	96K, 1 drive	$350	Direct.aid

Software	Minimum Memory	Price	Manufacturer
LYNC	48K, 1 drive	$155	International Software Alliance
Mail-Com	64K, 1 drive	$195	Digisoft
Micro Gate	64K, 1 drive	$895	Gateway
Micro/Terminal	64K, 1 drive	$100	Microcom
Odd-Couple	64K, 1 drive	$ 80	Rogue River
P-Com	128K, 1 drive	$225	Fogle
Passport	128K, 1 drive	$500	Datalex
PC COM I	64K, 1 drive, with Rixon Modem	$ 89	Rixon
PC MODEM	96K, 1 drive	$ 89	Solution Software
PC/InterComm	64K, 1 drive	$100	Mark of the Unicorn
PC-Support	128K, 1 drive, with Hayes SmartModem	$200	Miracle
PC-Talk III	64K, 1 drive	$ 35	Freeware
poly-XFR	128K, 1 drive	$150	Polygon
Qbulletin	128K, 1 drive	$250	Quantum
Questalk	128K, 1 drive	$110	Quest Research
ReadiTerm	96K, 1 drive	$ 75	ReadiWare
Relay	96K, 1 drive	$ 89	VM Personal Computing
REMOTE	64K, 1 drive	$150	Microstuf
R/Net	64K, 1 drive	$200	Cosmos
R/Upload	64K, 1 drive	$100	Cosmos
SMART	64K, 1 drive	$ 15	PSI
SmartCom II	96K, 1 drive	$119	Hayes Microproducts

Software	Minimum Memory	Price	Manufacturer
SmarTelex (e)	64K, 2 drives, with Hayes SmartModem	$450	Cappcomm
SmarTelex (s)	64K, 2 drives, with WUI telex link	$450	Cappcomm
SmartTerm/PC	128K, 2 drives	$295	Persoft
SRFILE	64K, 1 drive	$200	Real Time
SYNCH COM	4K, 1 drive	$395	Microprocessor Associates
Telecommunications	64K, 1 drive	$150	Peachtree
Telios	64K, 1 drive	$100	Genays
Transfile	64K, 1 drive	$225	Jack Strick Assoc.
Transporter	96K, 1 drive	$295	Microstuf
UAP-Link	64K, 1 drive	$250	Unique Automation Products
UCOMM	192K, 1 drive	$195	Real Time
VDTE	128K, 1 drive	$200	Inner Loop
VideoLink 88	64K, 1 drive	$ 60	Windmill
VTerm	64K, 1 drive	$125	Techland
ZipCom	48K, 1 drive	$205	Zipco

AppleDOS Software

Software	Minimum Memory	Price	Manufacturer
Apple Access	128K, 1 drive	--	Apple
ASCII Express: Professional	48K, 1 drive	$130	Southwest Data
ASCII Express II	48K, 1 drive	$ 60	Southwest Data
Comm-Pac	48K, 1 drive	--	Apple
COMMS	48K, 1 drive	--	Systemshare
Data Capture/Apple	48K, 1 drive	$120	Southeastern
Hello Central!	54K, 1 drive	$ 99	Howard W. Sams
Micro-Courier	48K, 1 drive	--	Apple
P-Term	48K, 1 drive	$130	Southwest Data
PIE: Communications	48K, 1 drive	$100	Hayden
Terminal Program	48K, 1 drive	$100	Hayes
Transend	48K, 1 drive	--	SSM Microcomputer
VisiLink	48K, 1 drive	$250	VisiWord
VisiTerm	48K, 1 drive	$100	VisiCorp
Z-Term	48K, 1 drive	$100	Southwest Data
Z-Term Professional	48K, 1 drive	$150	Southwest Data

CP/M Software

Software	Minimum Memory	Price	Manufacturer
Connect	64K, 1 drive	$150	Vector
DR Access 10	96K, 1 drive	$500	Digital Research
Micro Telex	94K, 1 drive, with Hayes SmartModem	$150	Systems Plus
Telecommunications	64K, 1 drive	$150	Peachtree
Term II	64K, 1 drive	$200	Supersoft

TRSDOS Software

Software	Minimum Memory	Price	Manufacturer
APL Plus-80	48K, 1 drive	$295	STSC
Communication System	32K, 1 drive	$150	Small Business Systems
Filexfer	Cassette tape	$ 50	Computer Applications
Reformatter TRSDOS:CP/M	64K, 1 drive	$249	Microtech
Reformatter TRSDOS:DEC	64K, 1 drive	$249	Microtech
ST80-DUC, ST80-UC	32K, 1 drive	--	Small Business Systems
TCOM	8K, 1 drive	$ 30	Alternate Source
Teleset-80	32K, 1 drive	--	Small Business Systems
W9AV	16K, cassette tape or drive	$ 15	Sprott

Proprietary Software

Software	Operating System	Minimum Memory	Price	Manufacturer
Mail Master	BOS	64K, 1 drive	$300	Billings Computer
RBTE-S-L	Cromemco DOS	48K, 1 8" drive	--	Cromemco
Reformatter CROMIX:DEC	Cromix	64K, 1 8" drive	$249	Microtech
Reformatter DEC:CP/M	RT-11	32K, 1 8" drive	$350	Microtech

Part V

Translation Tables

After the purchase of interfacing hardware or software, the type house must create translation tables. Every major phototypesetting manufacturer, and most manufacturers of peripheral interfacing devices, supply the customer with a set of default translation tables. Default tables work; they are the basic guides from which a type house or in-house graphics facility can customize its own set of tables. The following tables are the default tables for the LCI telecommunications software manufactured for the Mergenthaler CRTronic standalone phototypesetter. The tables are reproduced with the permission of the Mergenthaler Linotype Company.

Default Translation Tables

The following chart provides the default translations used on the LCI for the CRTronic Family. This chart is broken into two parts. The first is for the ASCII default translations and the second is for EBCDIC default translations. Coding is presented in ascending hex code order for the language described. Note that there is a difference between ASCII 7 bit and 8 bit coding. Use the chart at the bottom of this page for transferring from one to the other as in the ASCII chart. For mnemonic description, the following is provided:

Mnemonics used in chart:

ACK - Acknowledge
BEL - Bell
BS - Back Space
CAN - Cancel
CR - Carriage Return
CU - Control Unit
DC - Device Control
DEL - Delete
DLE - Data Link Escape
EM - End of Medium
ENQ - Enquiry
EOT - End of Transmission
ESC - Escape
ETB - End of Block
ETX - End of Text
FF - Form Feed
FS - File Separator
GS - Group Separator
HT - Horizontal Tab
IL - Light
LC - Lower Case
LF - Line Feed
NAK - Negative Acknowledgement
NL - New Line
NUL - Null
PF - Paper Feed
RES - Restore
RS - Record Separator
RUB - Rubout or Delete
SI - Shift In
SO - Shift Out
SOH - Start of Header
SOS - Shift Out Shift
SP - Space
STX - Start of Text
SUB - Substitute
SYN - Synchronous
UC - Upper Case
US - Unit Separator
VT - Vertical Tab

Notes:

1. EOT is used to shut down the LCI and provide end of transmission statistics to the CRTronic.
2. 8 bit ASCII hex codes follow the ASCII 7 bit hex codes in the following manner:

7 bit ASCII		8 bit ASCII
00 thru 1F	match with	00 thru 1F
20 thru 3F	match with	40 thru 5F
40 thru 5F	match with	A0 thru BF
60 thru 7F	match with	E0 thru FF

Other characters in 8 bit ASCII are not defined for usage in the CRTronic LCI under default translations.

CRTronic Default Translations - ASCII - 7 bit

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	ASCII	CRT	
NUL	00	FF	None
SOH	01	FF	None
STX	02	FF	None
ETX	03	FF	None
EOT	04	F3	EOT
ENQ	05	FF	None
ACK	06	FF	None
BEL	07	FF	None
BS	08	FF	None
HT	09	AE	Word Space
LF	0A	AE	Word Space
VT	0B	AE	Word Space
FF	0C	AE	Word Space
CR	0D	AE	Word Space
SO	0E	FF	None
SI	0F	FF	None
DLE	10	FF	None
DC1	11	FF	None
DC2	12	FF	None
DC3	13	FF	None
DC4	14	FF	None
NAK	15	FF	None
SYN	16	FF	None
ETB	17	FF	None
CAN	18	FF	None
EM	19	FF	None
SUB	1A	FF	None
ESC	1B	FF	None
FS	1C	FF	None
GS	1D	FF	None
RS	1E	FF	None
US	1F	FF	None

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	ASCII	CRT	
SP	20	FF	None
!	21	9B	!
"	22	7A	"
#	23	58	#
$	24	80	$
%	25	92	%
&	26	98	&
'	27	9D	'
(	28	99	(
)	29	9A	)
*	2A	83	*
+	2B	FF	None
,	2C	A2	,
-	2D	A9	-
.	2E	A1	.
/	2F	AD	/
0	30	00	0
1	31	01	1
2	32	02	2
3	33	03	3
4	34	04	4
5	35	05	5
6	36	06	6
7	37	07	7
8	38	08	8
9	39	09	9
:	3A	A0	:
;	3B	9F	;
<	3C	FF	None
=	3D	FF	None
>	3E	FF	None
?	3F	9C	?

CRTronic Default Translations - ASCII - Con't

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	ASCII	CRT	
@	40	FF	None
A	41	0A	A
B	42	0B	B
C	43	0C	C
D	44	0D	D
E	45	0E	E
F	46	0F	F
G	47	10	G
H	48	11	H
I	49	12	I
J	4A	13	J
K	4B	14	K
L	4C	15	L
M	4D	16	M
N	4E	17	N
O	4F	18	O
P	50	19	P
Q	51	1A	Q
R	52	1B	R
S	53	1C	S
T	54	1D	T
U	55	1E	U
V	56	1F	V
W	57	20	W
X	58	21	X
Y	59	22	Y
Z	5A	23	Z
[	5B	7D	[
\	5C	FF	None
]	5D	7E	]
^	5E	FF	None
_	5F	FF	None

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	ASCII	CRT	
	60	8D	
a	61	24	a
b	62	25	b
c	63	26	c
d	64	27	d
e	65	28	e
f	66	29	f
g	67	2A	g
h	68	2B	h
i	69	2C	i
j	6A	2D	j
k	6B	2E	k
l	6C	2F	l
m	6D	30	m
n	6E	31	n
o	6F	32	o
p	70	33	p
q	71	34	q
r	72	35	r
s	73	36	s
t	74	37	t
u	75	38	u
v	76	39	v
w	77	3A	w
x	78	3B	x
y	79	3C	y
z	7A	3D	z
{	7B	FF	None
|	7C	FF	None
}	7D	FF	None
~	7E	71	~
RUB	7F	FF	None

CRTronic Default Translations - EBCDIC

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
NUL	00	FF	None
SOH	01	FF	None
STX	02	FF	None
ETX	03	FF	None
PF	04	FF	None
HT	05	AE	Word Space
LC	06	AE	Word Space
DEL	07	FF	None
	08	FF	None
RLF	09	FF	None
SMM	0A	FF	None
VT	0B	AE	Word Space
FF	0C	AE	Word Space
CR	0D	AE	Word Space
SO	0E	FF	None
SI	0F	FF	None
DLE	10	FF	None
DC1	11	FF	None
DC2	12	FF	None
DC3	13	FF	None
RES	14	FF	None
NL	15	AE	Word Space
BS	16	FF	None
IL	17	FF	None
CAN	18	FF	None
EM	19	FF	None
CC	1A	FF	None
CU1	1B	FF	None
FS	1C	AE	Word Space
GS	1D	AE	Word Space
RS	1E	AE	Word Space
US	1F	AE	Word Space

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
DS	20	FF	None
SOS	21	FF	None
FS	22	FF	None
WUS	23	FF	None
BYP	24	FF	None
LF	25	AE	Word Space
ETB	26	FF	None
ESC	27	FF	None
None	28	FF	None
None	29	FF	None
SM	2A	FF	None
CU2	2B	FF	None
None	2C	FF	None
ENQ	2D	FF	None
ACK	2E	FF	None
BEL	2F	FF	None
None	30	FF	None
None	31	FF	None
SYN	32	FF	None
IRT	33	AE	Word Space
PN	34	FF	None
RS	35	FF	None
UC	36	AE	Word Space
EOT	37	FF	None
SBS	38	FF	None
IT	39	FF	None
EOP	3A	FF	None
CU3	3B	FF	None
DC4	3C	FF	None
NAK	3D	FF	None
None	3E	FF	None
SUB	3F	FF	None

CRTronic Default Translations - EBCDIC Con't

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
SP	40	AE	Word Space
RSP	41	AE	Word Space
None	42	FF	None
None	43	FF	None
None	44	FF	None
None	45	FF	None
None	46	FF	None
None	47	FF	None
None	48	FF	None
None	49	FF	None
¢	4A	7D	[
.	4B	A1	.
§	4C	82	§
(	4D	99	(
+	4E	FF	None
	4F	9B	!
&	50	FF	None
None	51	FF	None
None	52	FF	None
None	53	FF	None
None	54	FF	None
None	55	FF	None
None	56	FF	None
None	57	FF	None
None	58	FF	None
None	59	FF	None
!	5A	7E	[
$	5B	80	$
*	5C	83	*
)	5D	9A	)
;	5E	9F	;
^	5F	81	¢

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	ASCII	CRT	
	60	A9	
/	61	AD	/
None	62	FF	None
None	63	FF	None
None	64	FF	None
None	65	FF	None
None	66	FF	None
None	67	FF	None
None	68	FF	None
None	69	FF	None
;	6A	64	½
,	6B	A2	,
%	6C	92	%
_	6D	FF	None
>	6E	FF	None
?	6F	9C	?
ACK0	70	FF	None
None	71	FF	None
None	72	FF	None
None	73	FF	None
None	74	FF	None
None	75	FF	None
None	76	FF	None
None	77	FF	None
None	78	FF	None
±	79	FF	None
:	7A	A0	;
#	7B	58	#
@	7C	FF	None
'	7D	9D	'
=	7E	FF	None
"	7F	B0	"

CRTronic Default Translations - EBCDIC Con't

Word Processor		CRTronic	
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
None	80	FF	None
a	81	24	a
b	82	25	b
c	83	26	c
d	84	27	d
e	85	28	e
f	86	29	f
g	87	2A	g
h	88	2B	h
i	89	2C	i
None	8A	FF	None
None	8B	FF	None
⩽	8C	FF	None
None	8D	FF	None
None	8E	FF	None
None	8F	FF	None
None	90	FF	None
j	91	2D	j
k	92	2E	k
l	93	2F	l
m	94	30	m
n	95	31	n
o	96	32	o
p	97	33	p
q	98	34	q
r	99	35	r
None	9A	FF	None
None	9B	FF	None
None	9C	FF	None
None	9D	FF	None
±	9E	FF	None
None	9F	FF	None

Word Processor		CRTronic	
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
None	A0	FF	None
~	A1	84	°
s	A2	36	s
t	A3	37	t
u	A4	38	u
v	A5	39	v
w	A6	3A	w
x	A7	3B	x
y	A8	3C	y
z	A9	3D	z
None	AA	FF	None
None	AB	FF	None
None	AC	FF	None
[	AD	FF	None
⩾	AE	FF	None
None	AF	FF	None
SM0	B0	FF	None
SM1	B1	FF	None
SM2	B2	FF	None
SM3	B3	FF	None
SM4	B4	FF	None
SM5	B5	FF	None
SM6	B6	FF	None
SM7	B7	FF	None
SM8	B8	FF	None
SM9	B9	FF	None
None	BA	FF	None
None	BB	FF	None
None	BC	FF	None
]	BD	FF	None
≠	BE	FF	None
None	BF	FF	None

CRTronic Default Translations - EBCDIC Con't

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
{	C0	E7	⅔
A	C1	0A	A
B	C2	0B	B
C	C3	0C	C
D	C4	0D	D
E	C5	0E	E
F	C6	0F	F
G	C7	10	G
H	C8	11	H
I	C9	12	I
SHY	CA	FF	None
None	CB	FF	None
None	CC	FF	None
None	CD	FF	None
None	CE	FF	None
None	CF	FF	None
}	D0	65	¾
J	D1	13	J
K	D2	14	K
L	D3	15	L
M	D4	16	M
N	D5	17	N
O	D6	18	O
P	D7	19	P
Q	D8	1A	Q
R	D9	1B	R
None	DA	FF	None
None	DB	FF	None
None	DC	FF	None
None	DD	FF	None
None	DE	FF	None
None	DF	FF	None

Word Processor			CRTronic
Character or Control Code	*Hex Codes*		*Character or Control Code*
	EBCDIC	CRT	
\	E0	63	¼
NSP	E1	AE	Word Space
S	E2	1C	S
T	E3	1D	T
U	E4	1E	U
V	E5	1F	V
W	E6	20	W
X	E7	21	X
Y	E8	22	Y
Z	E9	23	Z
None	EA	FF	None
None	EB	FF	None
None	EC	FF	None
None	ED	FF	None
None	EE	FF	None
None	EF	FF	None
0	F0	00	0
1	F1	01	1
2	F2	02	2
3	F3	03	3
4	F4	04	4
5	F5	05	5
6	F6	06	6
7	F7	07	7
8	F8	08	8
9	F9	09	9
None	FA	FF	None
None	FB	FF	None
None	FC	FF	None
None	FD	FF	None
None	FE	FF	None
None	FF	FF	None

EBCDIC
2770,2780,3780 emulation

TTS
Asynchronous, TTY, 6 data bits, even parity, 1 stop bit.
Asynchronous, TTY, 6 data bits, odd parity, 1 stop bit.
Asynchronous, TTY, 6 data bits, no parity, 1 stop bit.

Baud rate can be from 50-9600 baud. If the transmission is to exceed 300 baud, the sending device must support X-on/X-off capabilities (DC1 and DC3 respectively). If the protocol has been established, appropriate modems must be purchased at each end, if the distance between devices is greater than 50 feet. (If the distance is less than 50 feet, a null modem cable can be used). Modem types must be compatible, low, medium or high speed, and Bell-type (103,113,202,212, etc.) similarity.

Lastly, the translation table has some rules to which it has to adhere. The table maximum is 2,000 characters, not including delimiters, separators, or translation type. A total of 256 characters are allowed per string; 63 characters maximum for input, 192 characters maximum for the output string. There are four types of translations available:

A Type = Alpha characters to alpha characters.

H Type = Alpha character to hex code.

R Type = Hex code to alpha character.

V Type = Hex code to hex code.

The keyword defines the delimiter and separator that will be used within the translation table as well as defining the start of table. It generally takes the form = == . This keyword must appear within the first 128 characters or the transmission will shut down.

Following the delimiter, the actual translation strings are defined. For example:

H*QL = BB

H*QR = B9

H*EOT = F3

The first translation string translates the characters *QL to the CRTronic hex code for quad left. *QR will translate to the CRTronic hex code to quad right, and the *EOT will translate to the CRTronic hex code for end of text (which is used to close a file and shut down transmission).

Using the charts in the LCI User's Guide, the operator can build and customize their tables for the application.

Part VI

Phototypesetting: Output Hardware

The four basic types of phototypesetters are the standalones consisting of a photo unit, keyboard, and terminal; the second-generation filmstrip typesetters; the third-generation scanners; and the fourth-generation laser machines. Included here, in general, are those machines that are still in production. However, some classic equipment that is not in production today, but is still widely available on the reconditioned/resale market, has also been listed. Telephone numbers and addresses for the various equipment manufacturers are found in The Interfacing Yellow Pages, under Phototypesetting Equipment Manufacturers.

Standalone Phototypesetters

Manufacturer/Model	Speed Lines/ Minute	Communications Available?	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/ Font	Word Processing as Direct Input?	Base Price
Alphatype AlphaComp III	20	Optional	46	2	6-24	$16-40	Optional	$16,800
Alphatype Action/tpu	20	No	72	823	5-36	$350	No	$69,000
Compugraphic CompuWriter IV	Direct-entry	Yes, through many 3rd-party options	45	12	6-72 or 6-36	$400	No	$ 9,950
Compugraphic 48 & 88	Direct-entry	No	45	8	6-48 or 6-24	$200	No	$ 8,500
Compugraphic EditWriter 7500	30	Optional	45	16	6-72	$300	No	$12,500
Compugraphic MCS 5	30	Optional	70	63	5-36	$120	No	$15,000
Compugraphic MCS 10	30	Optional	70	63	5-36	$120	No	$19,000
Itek 1400	25	Optional	48	38	5.5-36	$110	Standard	$15,500
Itek 1410	25	Optional	48	78	5.5-74	$110	Standard	$16,500
Itek 1600	50	Optional	48	38	5.5-36	$110	Standard	$19,000
Itek 1610	50	Optional	48	78	5.5-74	$110	Standard	$20,000
Itek 2100	25	Standard	48	38	5.5-36	$110	No	$12,500
Itek 2110	25	Standard	48	78	5.5-74	$110	No	$13,500
Itek 2200	50	Standard	48	38	5.5-36	$110	No	$16,500
Itek 2210	50	Standard	48	78	5.5-74	$110	No	$17,500
Mergenthaler CRTronic 100	18	Standard	45	321	4-36	$185	Optional	$16,950

Standalone Phototypesetters

Manufacturer/Model	Speed Lines/ Minute	Communications Available?	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/ Font	Word Processing as Direct Input?	Base Price
Mergenthaler CRTronic 150	36	Standard	45	681	4-72	$185	Optional	$19,950
Mergenthaler CRTronic 200	40, 100, 125	Standard	45	1241	4-128	$185	Optional	$22,950
Mergenthaler Omnitech 2000	120	Standard	66	246	4.5-127.5	$185	Standard	$27,000
Mergenthaler Omnitech 2100	120	Standard	66	246	4.5-127.5	$185	Standard	$31,900
Varityper 510-II	20	Optional	45	70	5.5-74	$238	Standard (AMtext 425 WP)	$10,000
Varityper 3510	50/70	Optional	45/70	70	5.5-74	$238	Standard	$14,000
Varityper 4510	50/70	Optional	45/70	70	5.5-74	$238	Standard	$16,000
Varityper 5310	50/70	Optional	70	138	5.5-74 or 4-36	$238	Standard	$18,000
Varityper 5410	50/70	Optional	70	138	5.5-74 or 4-36	$238	Standard	$20,000
Varityper 5510	150	Optional	70	138	5.5-74 or 4-36	$238	Standard	$23,000
Varityper 5810	50/70	Optional	70	138	5.5-74 or 4-36	$238	Standard	$23,000
Varityper 5900	150	Optional	70	138	5.5-74 or 4-36	$238	Standard	$25,000

Second-Generation Filmstrip Photo Units

Manufacturer/Model	Speed Lines/ Minute	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/ Font	Fonts On-line	Type of Font	Price
Alphatype apu	50	75	1,458	5-60	$350	16	Glass grid	$57,000
Alphatype tpu	20	72	823	5-36 or 5-72	$350	8	Glass grid	$34,000
Berthold acs 3200	20	72	823	5-36	$350	8	Glass grid	--
Compugraphic MCS 8204	30	70	63	5-36	$120	4	Plastic strip	$14,500
Compugraphic MCS 8208	30	70	63	5-36	$120	8	Plastic strip	$17,500
Compugraphic MCS 8216	30	70	63	5-36	$120	16	Plastic strip	$19,000
Harris 3300	50/70	70	70	5.5-74	$225	16	Disc	$18,000
Wang 5548	50	47	19	5-54	$300	8	Plastic strip	$19,000

Scanner Photo Units

Manufacturer/Model	Speed Lines/Minute	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/ Font	Resolution Lines/Inch	Price
Alphatype CRS Sheet	80	94	87	5-48	$320	5300	$ 29,000
Alphatype CRS Roll 70	80	70	87	5-48	$320	5300	$ 32,500
Alphatype CRS Roll 94	80	94	87	5-48	$320	5300	$ 32,500
Autologic APS Nano-5	300	68	1,230	5-128	Varies	723-1426	$ 29,500
Autologic APS Micro 5-45	500, 1000*	45	600	4-64	Varies	904-3616	$ 57,500
Autologic APS Micro 5-57	500, 1000	57	750	5-80	Varies	723-2892	$ 58,500
Autologic APS Micro 5-70	500, 1000	70	600	4-64	Varies	600-2400	$ 59,500
Autologic APS 5-100	500, 4000	100	750	5-80	Varies	723-1446	$139,500
Autologic APS 5-108	500, 4000	108	750	5-80	Varies	723-1446	$144,500
Autologic APS 5 C-100	500, 4000	100	750	5-80, up to 160 optional	Varies	Up to 2892	$178,000
Autologic APS 5 C/M-100	500, 4000	100	750	5-80, up to 160 optional	Varies	Up to 2892	$211,500
Autologic APS 5 G-100	500, 4000	100	750	5-80, up to 160 optional	Varies	Up to 2892	$152,000
Autologic APS-5 G/M-57	500, 4000	57	750	5-80, up to 160 optional	Varies	723-1446	$147,500
Autologic APS-5 G/M-70	500, 4000	70	920	5-96, up to 192 optional	Varies	723-1446	$152,500
Autologic APS-5 G/M-100	500, 4000	100	920	5-95, up to 192 optional	Varies	723-1446	$189,000

Autologic APS-5 M-100	500, 4000	100	750	5-80, up to 160 optional	Varies	723-1446	$176,500
Autologic APS-5 M-108	500, 4000	108	750	5-80, up to 160 optional	Varies	723-1446	$181,500
Autologic APS-5 U-57	500, 4000	57 (100 optional)	750	5-80, up to 160 optional	Varies	723-1446	$ 97,500
Autologic APS-5 U-70	500, 4000	70 (100 optional)	920	5-96, up to 192 optional	Varies	723-1446	$102,500
Autologic APS-5 U/C-57	500, 4000	57 (100 optional)	750	5-80, up to 160 optional	Varies	Up to 2892	$136,000
Autologic APS-5 U/C-70	500, 4000	70 (100 optional)	920	5-96, up to 192 optional	Varies	Up to 2892	$141,000
Autologic APS-5 U/C/M-57	500, 4000	57 (100 optional)	750	5-80, up to 160 optional	Varies	Up to 2892	$174,500
Autologic APS-5 U/C/M-70	500, 4000	70 (100 optional)	920	5-96, up to 192 optional	Varies	Up to 2892	$179,500
Autologic APS-5 U/G-57	500, 4000	57 (100 optional)	750	5-80, up to 160 optional	Varies	723-1446	$110,000
Autologic APS-5 U/G-70	500, 4000	70 (100 optional)	920	5-96, up to 192 optional	Varies	723-1446	$115,000
Autologic APS-5 U/M-57	500, 4000	57 (100 optional)	750	5-80, up to 160 optional	Varies	723-1446	$134,500
Autologic APS-5 U/M-70	500, 4000	70 (100 optional)	920	5-96, up to 160 optional	Varies	723-1446	$139,500
Compugraphic 8400	150, 250, optional 325	70	133	5-72	Varies	2600	$ 26,000

*Speed for all APS photo units is 500 lpm for paper tape, 4000 lpm for magnetic media.

Scanner Photo Units

Manufacturer/Model	Speed Lines/Minute	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/ Font	Resolution Lines/Inch	Price
Compugraphic 8600/45	860	45	137	4-72	$320	1300x1569	$ 47,800
Compugraphic 8600/68	860	68	137	4-72	$320	1300x1569	$ 57,800
Harris 7500	500, 1000	68	920	5-96	$3.50/ char.	1000x420	$ 90,000
Harris 7550	500, 1000	68	920	5-96	$3.50 char.	1000x420	$ 95,000
Harris 7700	500, 1000	100	920	5-96	$3.50/ char.	1000x420	$118,000
Harris 7750	500, 1000	100	920	5-96	$3.50/ char.	1000x420	$125,000
HCM Digiset 20T1	500	51	297	4-72	Varies	402-1204 x482-1445	--
Information Intl. InfoSet 400	2000	96	1390	5-144	Varies	2160x1080	$ 96,200
Information Intl. VideoComp 570	2000	66, 70	680	5-72	$3.50/ char.	2160x1080	$183,750
Information Intl. COMp 80	2000	66, 70	680	5-72	$3.50/ char.	2150x1080	$300,750
Itek Mark IX	600	100	81	5-72	$1.50/ char.	1700x650	$ 65,000
Mergenthaler Linotron 202N	700	48	161	4.5-96	$23-$215	975, or 1950	$ 52,000
Mergenthaler Linotron 202W	700	70	161	4.5-96	$23-$215	975, or 1950	$ 62,000

Mergenthaler Linotron 606	3000	100	249	4.5-128	$23-$215	370-1560	$165,000
Varityper Comp/Edit 6300	175	70	163	4-85	$0.60/char.	1326	$ 26,000
Varityper Comp/Edit 6400	175	70	163	4-85	$0.60/char.	1326	$ 28,000

Laser Photo Units

Manufacturer/Model	Speed Lines/Minute	Maximum Line Length	Number of Type Sizes	Range of Type Sizes	Price/Font	Resolution Lines/Inch	Price
Camex 3100 BitSetter	120-1000	100	4189	4-432	$20,000 for 270 font library	1000x1000	$ 70,000
Mergenthaler Linotron 101	140	70.5	246	4.5-127.5	$23-$215	362,723, or 1446 x 1400	$ 20,000
Mergenthaler Omnitech 2000	120	66	246	4.5-127.5	Varies	723x723	$ 27,000
Mergenthaler Omnitech 2100	120	66	246	4.5-127.5	Varies	723x723	$ 32,000
Monotype Lasercomp MK2/68, MK2i/68	1080	68	368	5-256	$225, $290, or $340	1000x1000	$102,000, $112,000
Monotype Lasercomp MK2/100, MK2i/100	1080	100	368	5-256	$225, $290, or $340	1000x1000	$110,000, $120,000
Monotype Lasercomp MK2/108, MK2i/108	1080	108	368	5-256	$225, $290 or $340	1000x1000	$120,000, $130,000

Part VII

The Interfacing Yellow Pages

Word Processing Hardware Manufacturers

A. B. Dick Co.
5700 West Touhy Avenue
Chicago, IL 60648
(312) 782-2626
Magna SL standalone word processor

AT&T Technology Systems Inc.
32 Avenue of the Americas
New York, NY 10013
(212) 925-8066
AT&T 3B System

Access Matrix Corp.
2159 Bering Drive
San Jose, CA 95131
(408) 263-3660
Access Matrix microcomputer

Alspa Computer Inc.
300 Harvey West Boulevard
Santa Cruz, CA 95060
(408) 429-6000
AC-1 microcomputer

Altos Computer Systems
2360 Bering Drive
San Jose, CA 95131
(408) 946-6700
Altos Series 5 multi-user microcomputer systems

Apple Computer Inc.
10260 Bandley Drive
Cupertino, CA 95014
(408) 996-1010
Apple IIe, Apple III, Lisa, and Macintosh microcomputers

Archives Inc.
404 West 35 Street
Davenport, IA 52806
(319) 386-7400, 800-553-6950
Models I, II, and III microcomputers

Basis Inc.
5435 Scotts Valley Drive
Scotts Valley, CA 95066
(408) 438-5804
Basis 108 microcomputer

Beehive International
4910 Amelia Earhart Drive
Box 25688
Salt Lake City, UT 84125
(801) 355-6000

Billings Computer Corp.
18600 East 37 Terrace South
Independence, MO 64057
(816) 373-0000
Billings BC-12FD Small Business System and Branch Office System microcomputers and micro systems

Blackhawk Computer Systems
426 West Second Street
Davenport, IA 52801
(319) 323-7857
Blackhawk systems-oriented microcomputers

BMC Computer Corp.
16830 South Avalon Boulevard
Carson, CA 90746
(213) 515-6005
BMC if800 microcomputer

Burroughs Corp.
Burroughs Place
Detroit, MI 48232
(313) 972-7000
Burroughs Ofiswriter 315

Columbia Data Products
8990 Route 108
Columbia, MD 21045
(301) 992-3400
MPC microcomputer

Commodore Business Machines Inc.
Computer Systems Division
The Meadows
487 Devon Park Drive
Wayne, PA 19087
(215) 687-9750
Commodore 64 microcomputer, VIC-20, SuperPET

Compal Inc.
6300 Variel Avenue
Woodland Hills, CA 91367
(213) 992-4425
Compal 8200 and 8200+ microcomputers

Compaq Computer Corp.
12337 Jones Road
Houston, TX 77070
800-231-9966
Compaq portable microcomputer

Compucorp
2211 Michigan Avenue
Santa Monica, CA 90404
(213) 829-7453
Compucorp 685 standalone word processor

Computer Devices Inc.
25 North Avenue
Burlington, MA 01803
(617) 273-1550
Dot microcomputer

Computer Products International
835 Touhy Avenue
Elk Grove Village, IL 60018
(312) 364-4141
CPT 8100

Corona Data Systems
31324 Via Colinas
Westlake Village, CA 91361
(213) 706-1505
Corona PC microcomputer

Corvus Systems Inc.
2029 O'Toole Avenue
San Jose, CA 95131
(408) 946-7700
Corvus Concept microcomputer system

Cromemco Inc.
280 Bernardo Avenue
Mountain View, CA 94040
(415) 964-7400
Cromemco CS One, CS Two, and CS Three microcomputer systems

Cybertext Corp.
Box 860
Arcata, CA 95521
(707) 822-7079
Cybertext LNW80 microcomputer

Digilog Business Systems Inc.
Welsh Road and Park Drive
Box 355
Montgomeryville, PA 18936
(215) 443-8300
Digilog Systems 1500 and 1800 microcomputer systems

Digital Equipment Corp.
146 Main Street
Maynard, MA 01754
(617) 897-5111, 800-DIGITAL
Rainbow, Professional 300 series, GIGI microcomputers. DECmate standalone word processing system; minicomputers

Durango Systems Inc.
3003 North First Street
San Jose, CA 95134
(408) 946-5000, 800-538-3952, 800-662-9828 (CA)
Durango F-85 microcomputer

Dynalogic Info-Tech Corp.
141 Bentley Avenue
Ottawa, ON K2E 6T7, Canada
(613) 226-1383
Dynalogic Hyperion microcomputer

Eagle Computer Co.
983 University Avenue
Los Gatos, CA 95030
(408) 395-5005
Eagle PC microcomputer

Epson America Inc.
Computer Products Division
3415 Kashiwa Street
Torrance, CA 90505
(215) 539-9140
Epson QX-10 microcomputer

Fortune Systems Corp.
1501 Industrial Road
San Carlos, CA 94070
(415) 595-8440
Fortune 32:16 microcomputer

Franklin Computer Corp.
2128 Route 38
Cherry Hill, NJ 08002
(609) 482-5900
Franklin Ace 1000 microcomputer

Fujitsu Microelectronics
Professional Microsystems
Division
3320 Scott Boulevard
Santa Clara, CA 95051
(408) 980-0755 800-MICRO16
Micro 16 microcomputer

GMR Inc.
1048 East Burgrove Street
Carson, CA 90746
(213) 639-4663
GMR Small One portable
microcomputer

Grid Systems Corp.
2535 Garcia Avenue
Mountain View, CA 94043
(415) 961-4800
Grid Compass microcomputer

The Heath Co.
Benton Harbor, MI 49022
800-253-0570
Heathkit Model 100 microcomputer
(Zenith 100 microcomputer)

Hewlett-Packard Co.
1820 Embarcadero Road
Palo Alto, CA 94303
(415) 857-1501
HP 86B and 87 microcomputers;
HP 16 microcomputer and
system

Hitachi Sales Corp. of America
Personal Computer Division
401 West Artesia Boulevard
Compton, CA 90220
(213) 537-8383
MB 16000

IMS International
2800 Lockheed Way
Carson City, NV 89701
(702) 883-7611
IMS Models 5000 and 8000
microcomputer systems

International Business Machines
Armonk, NY 10504
(914) 765-1900
IBM PC, PCjr microcomputers;
minicomputers

Ithaca Intersystems
1650 Hanshaw Road
Ithaca, NY 14850
(607) 273-2500
Ithaca CB-525/800
microcomputer system

Kaypro Computers
533 Stevens Avenue
Solana Beach, CA 92075
(619) 481-4300, 800-447-4700
Kaypro II, 4, and 10
microcomputers

Lanier Business Products Inc.
1700 Chantilly Drive
Northeast
Atlanta, GA 30324
(404) 329-8000
Lanier NoProblem and EZ-1
standalone word processors

M/A-COM Office Systems
Inc.
1333 South Chillicothe Road
Aurora, OH 44202
(216) 562-2020
Keymate C-100 microcomputer
and M/A-COM Masterkey
single-user microcomputer
system

Micro Technology Unlimited
Box 12106
2806 Hillsborough Street
Raleigh, NC 27605
(919) 833-1458
MTU-130 microcomputer

Modular Computer Systems
1650 West McNab Road
Fort Lauderdale, FL 33310
(305) 974-1380
Modcomp Zorba portable
minicomputer

Monroe Systems for Business
The American Road
Morris Plains, NJ 07950
(201) 993-2612
Monroe EC and OC microcomputers

Morrow Designs Inc.
5221 Central Avenue
Richmond, CA 94804
(415) 524-2101
Micro Decision 3

NBI Corp.
1695 38 Street
Boulder, CO 80301
(303) 444-5710
NBI Docuwriter and OASys
3000 standalone word
processors

NEC Information Systems Inc.
5 Militia Drive
Lexington, MA 02173
(617) 862-3120
NEC Advanced Personal
Computer

Non-Linear Systems
Kaypro Computers
533 Stevens Avenue
Solana Beach, CA 92075
(619) 481-4300, 800-447-4700
Kaypro II, 4, and 10
portable microcomputers

NorthStar Computers Inc.
14440 Catalina Street
San Leandro, CA 94577
(415) 357-8500
NorthStar Advantage
microcomputer

Onyx Systems
25 East Trimble Road
San Jose, CA 95131
(408) 946-6330
Sundance II microcomputer

Osborne Computer Corp.
26500 Corporate Avenue
Hayward, CA 94545
(415) 887-8080
Osborne 1 and Osborne Executive
portable microcomputers

Otrona
4755 Walnut Street
Boulder, CO 80301
(303) 444-8100
Attache 8/16

Phillips Information Systems Inc
440 McEwen Street
Dallas, TX 75234
(214) 386-5580
Micom 2001 standalone
word processor

Product Associates Inc.
465 Convention Way
Redwood City, CA 94063
(415) 364-3121
Z-Disk microcomputer and
micro system

Radio Shack/Tandy Corp.
1800 One Tandy Center
Fort Worth, TX 76102
(817) 390-3011
Radio Shack Models 3 and 4
microcomputers

Sanyo Business Systems Corp.
51 Joseph Street
Moonachie, NJ 07074
(201) 440-9300
MBC-1000+ microcomputer

Seequa Computer Corp.
209 West Street
Annapolis, MD 21401
(301) 268-6650
Seequa Chameleon and
Chameleon+ microcomputers

Seiko-Intech Systems Corp.
2025 Royal Lane
Dallas, TX 75229
(214) 241-1717, 800-368-5010
Seiko Series 8600 microcomputer and micro system

Sony Corp. of America
Microcomputer Products Division
9 West 56 Street
New York, NY 10019
(212) 371-5800
Sony SMC-70 microcomputer and Series 35 standalone word processor

Sperry Corp., Computer Systems
1290 Avenue of the Americas
New York, NY 10104
(212) 484-4444
Sperry Personal Computer

Tandy Corp.
1800 One Tandy Center
Fort Worth, TX 76102
(817) 390-3011
Radio Shack Models 3 and 4 microcomputers

Televideo Systems Inc.
1170 Morse Avenue
Sunnyvale, CA 94086
(408) 745-7760, 800-538-8725
Televideo 1603 microcomputer; TS801, TS802, TS802H, TS806, and TS816 microcomputer systems

Texas Instruments
Data Systems Group
Box 402430
Dallas, TX 75240
800-527-3500
Texas Instruments Professional

Toshiba America Inc.
2441 Michelle Drive
Tustin, CA 92680
800-447-2882,
800-332-4400 (IL)
Toshiba T100 and T300 microcomputers

Vector Graphic Inc.
500 North Ventu Park Road
Thousand Oaks, CA 91320
(805) 499-5831
Vector Graphic Series 4 and 5 microcomputer systems

Victor Technologies Inc.
380 El Pueblo Road
Scotts Valley, CA 95066
(408) 438-6680
Victor 9000 microcomputer

Wang Laboratories Inc.
One Industrial Avenue
Lowell, MA 01851
(617) 851-4111
Wangwriter, standalone word processor; Wang Professional Computer, minicomputer

Wicat Systems Inc.
1875 South State Street
Box 539
Orem, UT 84057
(801) 224-6400
Wicat System 100 microcomputer and micro system

Xerox Corp.
Xerox Square
Rochester, NY 14644
(716) 427-5400
Xerox 820-II and 16/8 microcomputers; Xerox 860 standalone word processor

Zenith
Data Systems Division
1000 Milwaukee Avenue
Glenview, IL 60025
(312) 391-7000
Zenith Model 100 microcomputer

Word Processing Software Manufacturers

Ann Arbor Software
407 North Main Street
Ann Arbor, MI 48104
(313) 769-9088
Textra Jr.: MS-DOS

Apple Computer Inc.
10260 Bandley Drive
Cupertino, CA 95014
(408) 996-1010
Apple Writer, Script I,
Script II: AppleDOS

Application Techniques
80 Townsend Street
Pepperell, MA 01463
(617) 433-5201
Rainbow Writer: MS-DOS

Applied Micro Systems
Box 150
Silver Lake, NH 03875
(603) 367-8004
Documate: HDOS (Hewlett-
Packard)

Artsci Inc.
5547 Satsuma
North Hollywood, CA 91601
(213) 985-2922
Magic Window II: AppleDOS

Atari Personal Computer Systems
1265 Barragas Avenue, Dept. C
Sunnyvale, CA 94086
(408) 745-2038
Atari WP: Atari OS

Baker Enterprises
15 Windsor Drive
Atco, NJ 08004
(609) 767-3085
Program Package: CDOS
(Commodore)

Beaman Porter Inc.
Pleasant Ridge Road
Harrison, NY 10528
(914) 967-3504
PowerText: MS-DOS

Billings Computer Corp.
18600 East 37 Terrace South
Independence, MO 64057
(816) 373-0000
Word Master: BDOS (Billings)

Blechman Enterprises
7217 Bernardine Avenue
Canoga Park, CA 91307
(213) 346-7024
Ambiz-Pak TRSDOS

Bluebird's Inc.
2267 23 Street
Wyandotte, MI 48192
(313) 285-4455
CTW: TRSDOS

Boeing Computer Services
2800 160 Avenue Southeast
Bellevue, WA 98009
(206) 763-5636
BITS WP System: MS-DOS

BOS Business Operating
Software National Inc.
2560 Royal Lane
Dallas, TX 75229
(214) 484-2717
AutoWriter: CP/M, MS-DOS

Broderbund Software
1938 Fourth Street
San Rafael, CA 94901
(415) 456-6424
Bank Street Writer: AppleDOS

Bruce and James Program
Publishers
4500 Tuller Road
Dublin, OH 43017
(614) 766-0110
Wordvision: TRSDOS

Business Solutions Inc.
60 East Main Street
King's Part, NY 11754
(516) 269-1120
Incredible Jack: AppleDOS

CE Software
238 Exchange Street
Chicopee, MA 01013
(413) 592-4761
Letter Writer: Atari OS

CGRS Microtech Inc.
513 Fairview Avenue
Pendel, PA 19047
(215) 757-0284
Copy Writer: CDOS (Commodore)

Chang Laboratories Inc.
5300 Stevens Creek Boulevard
San Jose, CA 95014
(408) 725-8088
MemoPlan: MS-DOS

Cimarron
666 Baker Street, Suite 319
Costa Mesa, CA 92626
(714) 641-1156
WordCraft: MS-DOS

Commodore Business Machines Inc.
Computer Systems Division
The Meadows
487 Devon Park Drive
Wayne, PA 19087
(215) 687-9750
Easy Script: CDOS (Commodore)

CompuView Products Inc.
1955 Pauline Boulevard
Suite 200
Ann Arbor, MI 48103
(313) 996-1299
Vedit: CP/M, MS-DOS

Corvus Systems Inc.
2029 O'Toole Avenue
San Jose, CA 95131
(408) 946-7700
Edword: Corvus OS

Cromemco Inc.
280 Bernardo Avenue
Mountain View, CA 94040
(415) 964-7400
WPS-S-L: Cromemco OS

Data Most
19273 Kenya Street
Northridge, CA 91326
(213) 366-7160
Write-On!: MS-DOS

Datasoft Inc.
19519 Business Center Drive
Northridge, CA 91324
(213) 701-5161
Script Wizard: AppleDOS;
Word Wizard: AppleDOS,
CDOS (Commodore), Atari OS

Datatek Inc.
2621 Enterprise Road
Clearwater, FL 33575
(813) 797-6464
Datatext: MS-DOS

Design Enterprises of
San Francisco
Box 14695
San Francisco, CA 94114
(415) 282-8813
Word Worker: MS-DOS, TRSDOS

Designer Software
3400 Montrose Boulevard
Suite 718
Houston, TX 77006
(713) 520-8221
Palantir: CP/M, MS-DOS,
TurboDOS

Digital Equipment Corp.
146 Main Street
Maynard, MA 01754
(617) 897-5111, 800-DIGITAL
NPL Report Generator,
Select: Digital OS

Distributed Software Systems
Box 1301
Northbrook, IL 60062
(312) 634-1511
Quick-Text: MS-DOS

Dwo Quong Fok Lok Sow
23 East 20 Street
New York, NY 10003
(212) 673-6310
Quick Brown Fox: MS-DOS

Einstein Corp.
11340 West Olympic Boulevard
Los Angeles, CA 90064
(213) 477-6733
Einstein Writer: MS-DOS

Emerging Technology
2031 Broadway
Boulder, CO 80302
(303) 447-9495
EDIX, WORDIX: MS-DOS

ETW Systems
9419 Seven Locks Road
Bethesda, MD 20817
(301) 469-7823
ETWedit: MS-DOS

Executex Corp.
12200 Park Central Drive
Dallas, TX 75251
(214) 239-8080
Execu/Writer: MS-DOS

Ferox Microsystems
1701 North Fort Myer Drive
Suite 611
Arlington, VA 22209
(703) 841-0800
WordExec: MS-DOS

Fortune Systems Corp.
1501 Industrial Road
San Carlos, CA 94070
(415) 595-8440
Word Processing: Fortune OS

FriendlySoft Inc.
3638 West Pioneer Parkway
Arlington, TX 76013
(817) 277-9378
FriendlyWriter: MS-DOS

Grid Systems Corp.
2535 Garcia Avenue
Mountain View, CA 94043
(415) 961-6873
Gridwrite: Grid OS

Harper Business Systems
910 179 Court Northeast
Bellevue, WA 98008
(206) 643-9762
Script: MS-DOS

Hayden Software Co.
600 Suffolk Street
Lowell, MA 01853
800-343-1218
PIE:Writer: AppleDOS, MS-DOS

Human Engineered Software
150 North Hill Drive
Brisbane, CA 94005
(415) 468-4110
Heswriter 64: CDOS (Commodore)

IBM, Software Publishing
Division
Box 1328, Dept. 2C6, 232-2
Boca Raton, FL 33432
(305) 998-1727
EasyWriter, Peachtext,
Personal Editor: MS-DOS

Image Processing Systems
Box 5016
Madison, WI 53705
(608) 233-5033
ProofWriter: MS-DOS

Information Unlimited Software
2401 Marinship Way
Sausalito, CA 94965
(415) 331-6700
Easy Writer II: MS-DOS

Innovative Technology Inc.
2387 Blackstone
Ottawa, ON K1B 4H3, Canada
(613) 521-8391
IEdit: MS-DOS

Instant Software Inc.
Route 101 and Elm Street
Peterborough, NH 03458
(603) 924-9471
Wordslinger: TRSDOS

Intersil Systems Inc.
1275 Hammerwood Avenue
Sunnyvale, CA 94086
(408) 743-4442
Perfect Writer: CP/M, MS-DOS

Irohnic Systems Inc.
11195 25-Mile Road
Utica, MI 48087
(313) 781-4587
Docuform: MS-DOS

Kensington Microware Ltd.
251 Park Avenue South
New York, NY 10010
(212) 475-5200
Format II: AppleDOS

Leading Edge Products Inc.
21 Highland Circle
Needham Heights, MA 02194
(617) 449-6762, 800-343-3436
Leading Edge: MS-DOS

Lexisoft Inc.
Box 267
Davis, CA 95616
(916) 758-3630
Spellbinder: CP/M, HDOS,
MS-DOS, Oasis, TurboDOS

Lifetree Software Inc.
177 Webster Street, Suite 342
Monterey, CA 93940
(408) 659-3221
Volkswriter: CP/M, MS-DOS

MARC Software International Inc.
260 Sheridan Avenue
Palo Alto, CA 94306
(415) 326-1971
Muse: MS-DOS

Mark of the Unicorn
222 Third Street
Cambridge, MA 02142
(617) 576-2760
Final Word: CP/M, MS-DOS, VEDIX;
Scribble: MS-DOS

Megahouse
5703 Oberlin Drive
San Diego, CA 92121
(619) 450-1230
MegaWriter: AppleDOS, MS-DOS

Metasoft Corp.
711 East Cottonwood, Suite E
Casa Grande, AZ 85222
(602) 836-0268
Benchmark: CP/M, GDOS, MS-DOS

Micro Architect Inc.
96 Dothan Street
Arlington, MA 02174
(617) 643-4713
Word-V: TRSDOS

MicroPro
33 San Pablo Drive
San Rafael, CA 94903
(415) 499-1200
WordStar: CP/M, MS-DOS;
ReportStar: CP/M, MS-DOS

Microsoft Corp.
10700 Northrup
Bellevue, WA 98004
(206) 828-8080
MS-DOS; Microsoft Word: MS-DOS

Miller Microcomputer Services
61 Lake Shore Road
Natick, MA 01760
(617) 653-6136
Forthwrite: MMSFORTH, MS-DOS

Monroe Systems for Business
The American Road
Morris Plains, NJ 07950
(201) 993-2612
Super Word: Monroe OS

Muse Software
347 North Charles Street
Baltimore, MD 21201
(301) 659-7212
Super-Text: AppleDOS

NEC Home Electronics USA Inc.
1401 Estes Avenue
Elk Grove Village, IL 60007
(312) 228-5900
Electric Pencil: CP/M

NEMCO
9 Walnut Street
Rutherford, NJ 07070
(201) 933-4933
Wordflex: MS-DOS

NorthStar Computers Inc.
14440 Catalina Street
San Leandro, CA 94577
(415) 357-8500
NorthWord: CP/M

Oak Tree Computing Inc.
481 Fairview Avenue
Arcadia, CA 91006
(213) 508-7717
Good-Words: MS-DOS

Oasis Systems
2765 Reynard Way
San Diego, CA 92103
(714) 291-9489
Word Plus: MS-DOS

Office Solutions Inc.
Box 5146
Madison, WI 53705
(608) 274-5047
Office Writer: MS-DOS

Omni Software Systems Inc.
146 North Broad Street
Griffith, IN 46319
(219) 924-3522
DOC: The Word Processor:
North Star DOS

Peachtree Software Inc.
3445 Peachtree Road Northeast
Atlanta, GA 30326
(404) 239-3000
Peachtext: MS-DOS

Professional Software Inc.
51 Fremont Street
Needham, MA 02194
(617) 444-5224, 800-343-4074
Wordplus-PC: MS-DOS

Radio Shack
1800 One Tandy Center
Fort Worth, TX 76102
(817) 390-3011
Scripsit, Super Scripsit:
TRSDOS

ReadiWare Systems Inc.
Box 680-D
West Redding, CT 06896
(203) 431-3521
ReadiWriter: MS-DOS

Samna Corp.
2700 Northeast Expressway
Atlanta, GA 30345
(404) 321-5006
Samna Word II: MS-DOS

Howard W. Sams & Co. Inc.
4300 West 62 Street, Box 7092
Indianapolis, IN 46206
800-428-3696
Clean Slate: TRSDOS; Pen Pal:
AppleDOS

Satellite Software International
288 West Center Street
Orem, UT 84057
(801) 224-8554
P-Edit, Personal WordPerfect:
MS-DOS

Select Information Systems
919 Sir Francis Drake Boulevard
Kentfield, CA 94904
(415) 459-4003
Select: MS-DOS

Sierra On-Line Inc.
36575 Mudge Ranch Road
Coarsegold, CA 93614
(209) 683-6858
Screenwriter: AppleDOS

Silicon Valley Systems Inc.
1625 El Camino Real, #4
Belmont, CA 94002
(415) 593-4344
Word Handler: AppleDOS

Single Source Solution
2637 Pleasant Hill Road
Pleasant Hill, CA 94523
(415) 944-5161
PC Forms, PC Word: MS-DOS

Sof/Sys Inc.
4036 Upton Avenue
Minneapolis, MN 55410
(612) 929-7104
Executive Secretary Word
Processing: MS-DOS

SofTech Microsystems Inc.
9494 Black Mountain Road
San Diego, CA 92126
(714) 578-7105
Edvance: MS-DOS

Software Concepts Inc.
1116 Sumner Street
Stamford, CT 06905
(203) 357-0522
Formation: Xerox OS

Software Publishing Corp.
1901 Landings Drive
Mountain View, CA 94043
(415) 962-8910
pfs:write: MS-DOS

Software Research
Box 10004
Austin, TX 78766
(512) 346-5097
Dillowriter: MS-DOS

Software Solutions Inc.
305 Bic Drive
Milford, CT 06460
(203) 877-9268
WordEase: MS-DOS

Software Toolworks
15233 Ventura Boulevard
Suite 1118
Sherman Oaks, CA 91403
(213) 986-4885
PIE 1.5: ZDOS (Zenith)

Softword Systems Inc.
52 Oakland Avenue North
East Hartford, CT 06108
(203) 282-0131
MultiMate: MS-DOS

Sorcim Corp.
2310 Lundy Avenue
San Jose, CA 95131
(408) 942-1727
SuperWriter: CP/M, MS-DOS

Southwestern Data Systems
10159 Mission Gorge Road
Santee, CA 92071
(714) 562-3670
Correspondent: AppleDOS

Sunshine Computer Software Co.
1101 Post Oak Boulevard
Suite 9-493
Houston, TX 77056
(713) 552-0949
Editor: MS-DOS

Supersoft
28 Burwood Avenue
Pinner, Middlesex, England
Star-Edit: MS-DOS, CP/M, ZDOS

Symmetric Software
1805 Clemson Street
San Bernardino, CA 92407
(714) 887-8595
Blue: MS-DOS

Synergistic Software
830 North Riverside Drive
Suite 201
Renton, WA 98055
(206) 226-3216
Higher Text II, Word Weaver II:
AppleDOS

Systemics
3050 Spring Street
West Bloomfield, MI 48033
(313) 851-2504
EZMemo+: MS-DOS

TexaSoft
1028 North Madison Avenue
Dallas, TX 75208
(214) 495-5052
VersaText: MS-DOS

Threshold Software
1832 Tribute Road, Suite E
Sacramento, CA 95815
(916) 920-8189
Write-Idea: HDOS
(Hewlitt-Packard)

TICOM Systems
13470 Washington Boulevard
Suite 207
Marina del Rey, CA 90291
(213) 827-7118
Final Copy: MS-DOS

Transaction Systems Inc.
8708 East 39 Street
Tulsa, OK 74145
(918) 663-3436
Busi-Text: MS-DOS

Tronware Inc.
3809 West 95 Street
Overland Park, KS 66206
(913) 381-7176
Scriptron: MS-DOS

Vector Graphic Inc.
500 North Ventu Park Road
Thousand Oaks, CA 91320
(805) 499-5831
Memorite: VDOS (Vector OS)

Victor Technologies Inc.
380 El Pueblo Road
Scotts Valley, CA 95066
(408) 438-6680
Victor Writer: VDOS (Victor)

Visicorp
2895 Zanker Road
San Jose, CA 95134
(408) 946-9000
VisiWord: MS-DOS

Westerly Business Systems
137½ Main Street
Westerly, RI 02891
(401) 596-1811
WES: CP/M, MS-DOS, TurboDOS

Xyquest Inc.
Box 372
Bedford, MA 01730
(617) 275-4439
Xywrite: MS-DOS

Interfacing Hardware Manufacturers

Alphatype
7711 North Merrimac Road
Niles, IL 60648
(312) 965-8800
Interface option and AlphaKey systems interface option

Altertext
210 Lincoln Street
Boston, MA 02111
(617) 426-0009
Systems I and II media converters

AM Varityper
11 Mount Pleasant Avenue
East Hanover, NJ 07936
(201) 887-8000, 800-631-8134
ECRM optical character readers; AMtext 425 telecommunications option; CompSet and CompEdit telecommunications options

Antares
Dybell/Ware
100 Peachtree Street Northwest
Atlanta, GA 30303
Antares media converter and telecommunications system

Applied Data Communications
14272 Chambers Road
Tustin, CA 92680
(714) 731-9000
Trans/Media 500 media converter

Autologic Corp.
1050 Rancho Conejo Boulevard
Newbury Park, CA 91320
(213) 889-7400
ICI telecommunications option

Burroughs
Context Division
9 Ray Avenue
Burlington, MA 01803
Context Models 210, 310, and 1205 optical character readers

Compugraphic Corp.
80 Industrial Way
Wilmington, MA 01887
(617) 944-6555
Compugraphic ICI and ACI telecommunications options; Word Com VI telecommunications; Word Com SI optical character reader; and Word Com MC media converter

CompuScan
900 Huyler Street
Teterboro, NJ 07608
Alpha Word optical character reader

Cromwell Graphics Systems
406 West 31 Street
New York, NY 10001
(212) 947-0135
Context IV media converter

Cybertext Corp.
Box 860
Arcata, CA 95521
(707) 822-7079
MicroComposer telecommunications option

Dest Data Corp.
1285 Forgewood Avenue
Sunnyvale, CA 94086
Dest optical character reader

EE Text Corp.
Box 119
Somerville, MA 02145
UPT telecommunications option

Electronic Information Technology
96 Vreeland Avenue
South Hackensack, NJ 07606
EIT telecommunications option

G. O. Graphics Inc.
179 Bedford Street
Lexington, MA 02173
CW/CI, ICI, Comp/Edit interface, and MDT 350 interface boards

GTCO
1055 First Street
Rockville, MD 20850
Models 3000 and 4000 telecommunications hardware

Hendrix
645 Harvey Road
Manchester, NH 03103
Typereader optical character reader

Information Design
Box 68
Hillsboro, OR 97123
Series 1000 telecommunications hardware

Intergraphics
106 South Columbus Street
Alexandria, VA 22314
InterCom 100 telecommunications

Itek Composition Systems
355 Middlesex Avenue
Wilmington, MA 01887
(617) 933-7000
DCI telecommunications and MultiDisk media converter

Kurzweil Computer Products
185 Albany Street
Cambridge, MA 02139
(617) 864-4700
KDEM and 4000 optical character readers

Mergenthaler Linotype Co.
201 Old Country Road
Melville, NY 11747
(516) 673-4197
WPI and Telecom telecommunications options

MicroText Systems
508 Lawrence Avenue West
Toronto, ON M6A 1A1, Canada
Telecommunications option

Penta Systems International
One East Chase Street
Baltimore, MD 21202
(301) 244-0050
PentaLink telecommunications

Phoenix Services Co.
117 Kay Court
Hurst, TX 76053
PII telecommunications

Quadex
215 First Street
Cambridge, MA 02142
Interface and Communication telecommunications

Racal Telesystems
401 North Michigan Avenue
Chicago, IL 60611
(312) 329-0700
Network/Protocol Translater telecommunications

Shaftstall Systems
7901 East 88 Street
Indianapolis, IN 46256
(317) 842-2077
MediaCom 5000 media converter and 2300-MDI, 2100-CDI, 5800-CEI, 7700-EDI, and MP 202 telecommunications

TeleTypesetting Co.
224 Nickels Arcade
Ann Arbor, MI 48104
(313) 761-7664
Microsetter telecommunications hardware

Wang Laboratories Inc.
One Industrial Avenue
Lowell, MA 01851
(617) 851-4111
Wang interface telecommunications between Wang word processor and typesetter

Modem Manufacturers

Anchor Automation
6913 Valjean Avenue
Van Nuys, CA 91406
Signalman MD 1 modem

Bizcomp Corp.
532 Weddell Avenue
Sunnyvale, CA 94089
(408) 745-1616
VersaModem and Intellimodem
series

ComData Corp.
7900 North Nagle Avenue
Morton Grove, IL 60053
(312) 470-9600

Digital Equipment Corp.
146 Main Street
Maynard, MA 01754
(617) 897-5111, 800-DIGITAL
DEC series

General Atronics
1200 East Mermaid Lane
Philadelphia, PA 19118
(215) 233-4100

General Datacom Industries
One Kennedy Drive
Danbury, CT 06810
(203) 797-0711
Datacom series

Hayes Microcomputer Products
5835 Peachtree Corners East
Norcross, GA 30092
(404) 449-8791
Hayes MicroModem and
SmartModem series

Lexicon Corp.
1541 Northwest 65 Street
Fort Lauderdale, FL 33313
(305) 792-4400
LEX-11 and LEX-12 modems

Microcom
1400A Providence Highway
Norwood, MA 02062
(617) 762-9310
Microcom modem series

Microperipheral Corp.
2565 152 Avenue Northeast
Redmond, WA 98052
(206) 881-7544
AutoPrint modem

MJF Enterprises
921 Louisville Road
Starkville, MS 39759
(601) 323-5869
MJF acoustic coupler

Novation Inc.
18664 Oxnard Street
Tarzana, CA 91356
(213) 996-5060
Cat and Autocat modems

Omnitec Data
2405 South 20 Street
Phoenix, AZ 85034
(602) 258-8244
700 and 4000 series of modems

Penril Corp.
5520 Randolph Road
Rockville, MD 20852
(301) 881-8151
Datacom modem

Prentice Corp.
266 Caspian Drive
Sunnyvale, CA 94086
(408) 734-9810
Star and P series modems

Racal-Vadic Inc.
222 Caspian Drive
Sunnyvale, CA 94086
(408) 744-0810
Complete line of more than
a dozen modems

Rixon Inc.
2120 Industrial Parkway
Silver Spring, MD 20904
(301) 622-2121
Rixon LOM and T series modems

Tandy Corp.
1800 One Tandy Center
Fort Worth, TX 76102
(817) 390-3011
Radio Shack modems

Universal Data Systems
5000 Bradford Drive
Huntsville, AL 35805
(205) 837-8100
202 and 212A modems

U.S. Robotics
1123 West Washington
Chicago, IL 60607
(312) 733-0497
Autolink, Microlink,
Microprint, Password,
and Phonelink modems

Ventel Inc.
2342 Walsh Avenue
Santa Clara, CA 95051
800-727-5721
Ventel modems

Telecommunications Software Manufacturers

Allston Group
Box 1557
Richardson, TX 75080
(214) 235-1631
ACOM-300: MS-DOS

Alpha Software Corp.
12 New England Executive Park
Burlington, MA 01803
(617) 229-2924
Apple-IBM Connection:
MS-DOS

Alternate Source
704 North Pennsylvania
Avenue
Lansing, MI 48910
(517) 485-0344
TCOM: TRSDOS

Apple Computer Inc.
10260 Bandley Drive
Cupertino, CA 95014
(408) 996-1010
Apple Access, Comm-Pac,
Micro-Courier:
AppleDOS

Arby Corp.
1617A Massachusetts
Avenue
Cambridge, MA 02138
Communication Program:
MS-DOS

Billings Computer Corp.
18600 East 37 Terrace South
Independence, MO 64057
(816) 373-0000
Mail Master:
BOS (Billings)

Byrom Software Inc.
2326 West 2500 North
Vernal, UT 84078
(801) 789-4807
BSTAM: MS-DOS

Cappcomm Software Inc.
One World Trade Center
Suite 1453
New York, NY 10048
(2120 938-5702
SmarTelex (e), SmarTelex (s):
MS-DOS

Communication Research Group
8939 Jefferson Highway
Baton Rouge, LA 70809
(504) 923-0888
Blast: MS-DOS

Computer Applications Corp.
2400 Poplar, Suite 318
Memphis, TN 28112
(901) 458-8630
Filexfer: TRSDOS

Computer Toolbox
1325 East Main Street
Waterbury, CT 06705
(203) 754-4197
Intellicom: MS-DOS

CompuView Products Inc.
1955 Pauline Boulevard,
Suite 200
Ann Arbor, MI 48103
(313) 996-1299
Modem-86: CP/M, MS-DOS

Cosmos
123 Ferntree Drive West,
Box AH
Morton, WA 98356
(206) 496-5974
R/Net, R/Uplad: MS-DOS

Cromemco Inc.
280 Bernardo Avenue
Mountain View, CA 94040
(415) 964-7400
RBTE-S-L: CDOS (Cromemco)

Datalex Co.
650 Fifth Street, Suite 406
San Francisco, CA 94107
(415) 541-0780
Passport: MS-DOS

Datasoft Inc.
19519 Business Center Drive
Northridge, CA 91324
(213) 701-5161
Tele-talk: AppleDOS, CDOS

Digisoft Computers Inc.
1501 Third Avenue
New York, NY 10028
(212) 734-3875
Mail-Com: MS-DOS

Digital Marketing Corp.
2363 Boulevard Circle
Walnut Creek, CA 94595
800-826-2222
MicroLink III: CP/M, MS-DOS

Digital Research Inc.
160 Central Avenue
Pacific Grove, CA 93950
(408) 649-3896
DR Access 10: CP/M

Direct.aid
Box 4420
Boulder, CO 80306
(303) 442-8080
Direct.connect, Law Search:
MS-DOS

Dynamic Microprocessor
Associates
545 Fifth Avenue,
Suite 1400
New York, NY 10017
(212) 687-7115
Ascom, EM8086: CP/M,
MS-DOS

Electronic Data Systems Corp.
717 Forest Lane
Dallas, TX 75230
(214) 661-6273
Communicator/Text Editor:
MS-DOS

Ferox Microsystems
1701 North Fort Myer Drive,
Suite 611
Arlington, VA 22209
(703) 841-0800
Log On: MS-DOS, UCSD

Fogle Computing Corp.
357 East Blackstock Road
Spartanburg, SC 29304
(803) 574-4950
P-COM: MS-DOS

Freeware
The Headlands Press Inc.
Box 862
Tiburon, CA 94920
PC-Talk III: MS-DOS

Frontier Technologies Corp.
Box 11238
Milwaukee, WI
(414) 964-8689
Asynch Compac, Bisynch Compac,
HDLC/SDLC Compac, X.25
Compac: CP/M, MS-DOS

Genasys
11820 Parklawn Drive
Rockville, MD 20852
(301) 468-6900
Telios: MS-DOS

GKE Software
236 North Santa Cruz Avenue
Los Gatos, CA 95030
(408) 354-5010
Auto-comm: MS-DOS

Hawkeye Grafix
23914 Mobile Street
Canoga Park, CA 91307
(213) 348-7909
CONSOLX: CDOS, CP/M, MS-DOS,
TurboDOS

Hayden Software Co.
600 Suffolk Street
Lowell, MA 01853
800-343-1218
PIE: Communications:
AppleDOS

Hayes Microcomputer Products
5923 Peachtree Industrial Boulevard
Norcross, GA 30092
(404) 449-8791
Terminal Program: AppleDOS

IBM Software Publishing Corp.
Box 1328, Department 2C6, 23202
Boca Raton, FL 33432
(305) 998-1727
Asynch Communications: MS-DOS

IE Systems Inc.
Box 359
Newmarket, NH 03857
(603) 659-5891
Acculink: CP/M, MS-DOS; BIS-3270: MS-DOS

Information Analysis Systems
Mason Road #2
West Willington, CT 06279
(203) 429-1691
Genterm: MS-DOS

Inner Loop Software
Box 45857
Los Angeles, CA 90045
(213) 645-5162
VDTE: MS-DOS

Intercomputer Communication Corp.
3195 Linwood, Suite 2A
Cincinnati, OH 45208
(513) 321-3199
Intercom 100: MS-DOS

International Software Alliance
1835 Mission Ridge
Santa Barbara, CA 93103
(805) 966-3077
LYNC: MS-DOS

Janadon Inc.
N. F. Systems Ltd.
Box 76363
Atlanta, GA 30358
(404) 252-3302
Hostcomm: MS-DOS

Jones Engineering Associates
Box 26134
Charlotte, NC 28221
(704) 455-9616
E-Mail: MS-DOS

Link Systems
1640 19 Street
Santa Monica, CA 90404
(213) 453-8921
DataLink: MS-DOS

Mark of the Unicorn
222 Third Street
Cambridge, MA 02142
(617) 576-2760
PC/InterComm: MS-DOS

Metasoft Corp.
711 East Cottonwood, Suite E
Casa Grande, AZ 85222
(602) 836-0268
Benchmark: AppleDOS, CP/M, GDOS, MS-DOS, TRSDOS

Micro-Integration Inc.
Box 335
Friendsville, MD 21531
(301) 746-5888
COAXSYS: CP/M, MS-DOS

Microcom
1400A Providence Highway
Norwood, MA 02062
(617) 762-9310
Micro/Terminal: MS-DOS

Microcorp
913 Walnut Street
Philadelphia, PA 19107
(215) 627-7997
Intelliterm: MS-DOS

Microstuf Inc.
1845 The Exchange, Suite 140
Atlanta, GA 30339
(404) 952-0267
Crosstalk: CP/M, MS-DOS; REMOTE, Transporter: MS-DOS

Microsystems
39 East Hanover Avenue
Morris Plains, NJ 07950
(201) 540-0445, 800-631-8112
MTERM: AppleDOS, CP/M,
MS-DOS, TRSDOS

MicroTech Exports Inc.
467 Hamilton Avenue,
Suite 2
Palo Alto, CA 94301
(415) 324-9114
Reformatter Series: CDOS,
CP/M, CROMIX, RT-11,
SDOS, TRSDOS

Miller Microcomputer
Services
61 Lake Shore Road
Natick, MA 01760
(617) 653-6136
ForthCom: MMSFORTH,
MS-DOS, TRSDOS

Miracle Computing
313 Clayton Court
Lawrence, KS 66044
(913) 843-5863
PC-Support: MS-DOS

Peachtree Software Inc.
3445 Peachtree Road
Northeast
Atlanta, GA 30326
(404) 239-3000
Telecommunications: CP/M,
MS-DOS

Persoft Inc.
2740 Ski Lane
Madison, WI 53713
(608) 233-1000
SmarTerm/PC: MS-DOS

Polygon Associates Inc.
9 American Industrial
St. Louis, MO 63043
(314) 576-7709
poly-XFR: MS-DOS

Professional Software Associates
5353 Wayzata Boulevard
Minneapolis, MN 55416
(612) 541-0742
CommTalk: CP/M, MS-DOS

PSI/Systems
Research Park, Box 3100
Andover, MA 01810
(617) 475-9030
SMART: MS-DOS

Quantum Software Systems Inc.
7219 Shea Court
San Jose, CA 95139
(408) 629-9402
Qbulletin: MS-DOS

Quest Research Inc.
303 Williams Avenue
Huntsville, AL 35801
800-558-8088
Questalk: MS-DOS

Readiware Systems Inc.
Box 680-M
West Redding, CT 06896
(203) 431-3521
ReadiTerm: MS-DOS

Real Time Concepts Inc.
Route 2, Box 92
Morgantown, IN 46160
(812) 988-7343
SRFILE: MS-DOS

Rixon Inc.
2120 Industrial Parkway
Silver Spring, MD 20904
(301) 622-2121
PC COM 1: MS-DOS

Rogue River Software
2822 Tahitian Avenue
Medford, OR 97504
(503) 779-3002
Odd-Couple: MS-DOS

RTCS
Box 3000-886
Camarillo, CA 93010
(805) 482-0333
IBM COM: MS-DOS

Howard W. Sams & Co.
4300 West 62 Street,
Box 7092
Indianapolis, IN 46206
800-428-3696
Hello Central!: AppleDOS

Small Business Systems Inc.
1016 East 31 Street
La Grange Park, IL 60525
(312) 579-3311
Communications System,
ST80-DUC, ST80-UC,
Teleset-80: TRSDOS

Smith Educational Engineering
Services
Box 244
Arlington Heights, IL 60006
(312) 394-3513
Icom: MS-DOS

Software Connections Inc.
1800 Wyatt Drive, Suite 17
Santa Clara, CA 95054
(408) 988-3704
LAN: MS-DOS

Solution Software
31 Greenwood
Sudbury, MA 01776
(617) 443-5120
PC MODEM: MS-DOS

Southeastern Software
6414 Derbyshire Drive
New Orleans, LA 70126
(504) 246-8438
Data Capture/Apple:
AppleDOS; Data Capture/
pc: MS-DOS

Southwestern Data Systems
10159 Mission Gorge Road
Santee, CA 92071
(714) 562-3670
ASCII Express II, ASCII
Express Professional, P-Term,
Z-Term, Z-Term
Professional: AppleDOS

J. C. Sprott
5002 Sheboygan Avenue, #207
Madison WI 53705
W9AV: TRSDOS

SSM Microcomputer Products Inc.
2190 Paragon Drive
San Jose, CA 95131
(408) 946-7400
Transend: AppleDOS

Starside Engineering
Box 18306
Rochester, NY 14618
(716) 461-1027
InterLync: MS-DOS

Jack Strick Associates
949 South Southlake Drive
Hollywood, FL 33019
(305) 925-7004
Transfile: MS-DOS

STSC Inc.
2115 East Jefferson Street
Rockville, MD 20852
(301) 984-5000
APL Plus-80: TRSDOS

Supersoft
28 Burwood Avenue
Pinner, Middlesex, England
Term II: CP/M

System Share
NEI Bruce Peebles Ltd.
East Pilton
Edinburgh, EH5 2XT Great Britain
COMMS: AppleDOS

Systems Plus
1120 San Antonio Road
Palo Alto, CA 94303
(415) 969-7047
Micro-Telex: CP/M

Unique Automation Products
17922 Sky Park Circle,
Suite L
Irvine, CA 92714
(714) 549-4832
UAP-Link: MS-DOS

Vector Graphic Inc.
500 North Ventu Park Road
Thousand Oaks, CA 91320
(805) 499-5831
Connect: CP/M

VisiCorp
2895 Zanker Road
San Jose, CA 95134
(408) 946-9000
VisiTerm, VisiLink:
AppleDOS

VM Personal Computing
60 East 42 Street
New York, NY 10165
(212) 697-4747
Relay: MS-DOS

Windmill Software Inc.
2209 Leominster Drive
Burlington, ON L7P 3W8, Canada
(416) 336-3353
VideoLink 88: MS-DOS

Woolf Software Systems
6754 Eton Avenue
Canoga Park, CA 91303
(213) 703-8112
Move-It: CP/M, MS-DOS

ZIPCO
400 Quivas Street
Denver, CO 80204
(303) 534-2097
ZipCom: MS-DOS

Phototypesetting Equipment Manufacturers

Alphatype
7711 North Merrimac Drive
Niles, IL 60648
(312) 965-8800
Standalones, film font photo units, and scanners; markets Berthold equipment

Autologic Corp.
1050 Rancho Conejo Boulevard
Newbury Park, CA 91320
(213) 889-7400
Scanners

Berthold of North America
610 Winters Avenue
Paramus, NJ 07652
(201) 262-8700
Film font photo units, standalones

Camex Inc.
210 Lincoln Street
Boston, MA 02111
(617) 426-3577
Laser photo units

Compugraphic Corp.
80 Industrial Way
Wilmington, MA 01887
Standalones, film font photo units

Harris Composition Systems
505 Rodes Boulevard
Melbourne, FL 32901
(305) 259-2900
Film font photo units and scanners

Information International Inc.
5933 Slauson Avenue
Culver City, CA 90230
(213) 390-8611
Scanners

Itek Composition Systems
355 Middlesex Avenue
Wilmington, MA 01887
(617) 933-7000
Scanners

Mergenthaler Linotype Co.
201 Old Country Road
Melville, NY 11747
(516) 673-4197
Standalones, scanners, and laser photo units

Monotype Graphic Systems Inc.
509 West Golf Road
Arlington Heights, IL 60005
Laser photo units

Varityper Inc.
11 Mount Pleasant Avenue
East Hanover, NJ 07936
Standalones and scanners

Wang Laboratories Inc.
One Industrial Avenue
Lowell, MA 01851
(617) 851-4111
Film font photo units

Type Houses with Interfacing Capability

ALABAMA

Akra Data
400 Office Park Drive
Suite 310
Birmingham, AL 35210
(205) 877-6632

IFS Graphics
1311 South Court
Montgomery, AL 36104

ARIZONA

Arrowhead Press Inc.
3131 West Clarendon Avenue
Phoenix, AZ 85017
(602) 263-8808

Imperial Lithographics
210 South Fourth Avenue
Phoenix, AZ 85036
(602) 257-8500

Repro Graphics
2810-A West Camelback Road
Phoenix, AZ 85036
(602) 242-8364

Walsh & Associates
2017 South Ventura Drive
Tempe, AZ 85281
(602) 894-1230

CALIFORNIA

Ad Comp Typography
324 13 Street
Oakland, CA 94612
(415) 834-1697

Ad Factory
1888 Century Park East
Los Angeles, CA 90001
(213) 552-3238

Ad Type Graphics
1804 Tribute Road
Suite K
Sacramento, CA 95815
(916) 929-8973

Agnew Tech-Tran Inc.
21050 Erwin Street
Woodland Hills, CA 91367
(213) 340-5147

Allen Composition
2869 Grove Way
Castro Valley, CA 94546
(415) 886-0224

American Typesetting Inc.
6900 Canby Avenue
Suite 101
Reseda, CA 91335
(213) 705-3332

Anderson Graphics
84 Langton Street
San Francisco, CA 94101
(415) 863-2286

Andresen Typographics
5059 Melrose Avenue
Los Angeles, CA 90012
(213) 464-4106

Auto-Graphics Inc.
751 Monterey Pass Road
Monterey Park, CA 91754
(213) 269-9451

B&R Photo-Graphic Arts Inc.
26644 South Western Avenue
Harbor City, CA 90710
(213) 530-9692

The Better Image
12821 Western Avenue M
Garden Grove, CA 92642
(714) 891-2000

Buhl Typographers
621 Chapala Street
Suite 1
Santa Barbara, CA 93102
(805) 965-7347

CBM Type
549-A Weddell Drive
Sunnyvale, CA 94087
(408) 734-4300

Cal Central Press
1800 11 Street
Sacramento, CA 95814
(916) 446-4801

Camera Ready Arts
2308 Broad Street
San Luis Obispo, CA 93401
(805) 541-0599

Catalina Graphics
380 West 38 Street
Los Angeles, CA 90037

Cliff Typographers
2221 West Olympic Boulevard
Los Angeles, CA 90015
(213) 487-4575

Communigraphics
10524 West Pico Boulevard
Los Angeles, CA 90064
(213) 202-7474

Computer Typesetting Services
540 West Colorado Street
Glendale, CA 91204
(213) 245-7131

Comtext Typography
546 Bryant Street
San Francisco, CA 94103
(415) 974-1007

Cortis Financial Printing
900 Wilshire Boulevard
Suite 1430
Los Angeles, CA 90017
(213) 624-2121

Davids Typesetting Corp.
14709½ Oxnard Street
Van Nuys, CA 91411
(213) 785-4417

Davis Data Composition
12515 Chadron Avenue
Hawthorn, CA 90250
(213) 679-0451

De Anza Graphics
10601 South De Anza Boulevard
Suite 303
Cupertino, CA 95014
(408) 255-2568

Design & Type Inc.
410 Townsend Street
Suite 408
San Francisco, CA 94107
(415) 495-6280

Design Graphiques
19616 Ventura Boulevard
Tarzana, CA 91356
(213) 710-1466

Dexter & Magee Typesetting
Box 541
San Luis Obispo, CA 93401
(805) 543-9363

Dynatype
740 East Wilson Avenue
Glendale, CA 91206
(213) 243-1114

England Associates Ltd.
2052 Broadway
Santa Monica, CA 90405
(213) 829-7706

Erich Printing &
Lithographing Inc.
1315 East Julian Street
San Jose, CA 95113
(408) 292-6050

Fotoset of California
2845 West Seventh Street
Los Angeles, CA 90005
(213) 487-3686

Freedmen's Organization
3311 Beverly Boulevard
Los Angeles, CA 90004
(213) 384-6642

George Graphics Co.
650 Second Street
San Francisco, CA 94107
(415) 397-2400

Good News Graphics
12053 Guerin Street, No. 4
Studio City, CA 91604
(213) 769-7086

Graf•Fix
1733 South Douglass Road
Suite H
Anaheim, CA 92802
(714) 978-7241

Graphic Typesetting
3929 South Broadway Place
Los Angeles, CA 90037
(213) 232-1185

HMS Typography Inc.
901 Sneath Lane
Suite 212
San Bruno, CA 94066
(415) 871-8000

Harmony Type Graphics
15161 West State Street
Westminster, CA 92683
(714) 898-6400

Helen's Place Printing
1229 West Ninth Street
Upland, CA 91786
(714) 981-5715

I/OCR Corp.
715 North Central Avenue
Suite 106
Glendale, CA 91203
(213) 247-0333

Interactive Composition Corp.
3333 Vincent Road
Pleasant Hill, CA 94523
(415) 935-4810

International Printers
10225 Greanleaf Avenue
Santa Fe Springs, CA 90670
(213) 946-1571

LARC Computing
339 South San Antonio Road
Los Altos, CA 94022
(415) 941-9310

Lexis Press
3103 Washington Street
San Francisco, CA 94101
(415) 567-5454

Light Impressions
217 Second Street
San Francisco, CA 94105
(415) 896-0584

Lilly Typesetting
11217 Slater Avenue
Fountain Valley, CA 92708
(714) 540-2042

McAdams Type
328 East Carrillo Street
Santa Barbara, CA 93101
(805) 965-0037

Macson Printing and Lithography
120 South Kenwood Street
Glendale, CA 91205
(213) 242-1146

Marina Printing
2903 Washington Boulevard
Marina Del Rey, CA 90291
(213) 822-9770

Mercury Typography Inc.
1050 Sansome Street
Fourth Floor
San Francisco, CA 94111
(415) 864-1338

Miller Freeman Composition
500 Howard Street
San Francisco, CA 94105
(415) 397-1881

The Office
2232 Southeast Bristol Street
Suite 202
Santa Ana Heights, CA 92701
(714) 549-2188

PM Typography
2513 South Winchester Boulevard
Campbell, CA 95008
(408) 374-0743

Pacific Financial Printing
1245 Howard Street
San Francisco, CA 94105
(415) 864-1174

Porter Graphics Inc.
1228A Village Way
Santa Ana, CA 92705
(714) 558-1947

Protype Graphics
80A Belvedere Street
San Rafael, CA 94092
(415) 459-1060

Q.E.D. Enterprises
2241 Hollyridge Drive
Los Angeles, CA 90028
(213) 466-2888

Quali-Type
4047 First Street
Suite 201
Livermore, CA 94550
(415) 447-6121

Reprotype
425 Bush Street
San Francisco, CA 94104
(415) 362-3972

Rothstein and Memsic
332 North LaBrea Avenue
Los Angeles, CA 90036
(213) 936-7209

Selanova & Associates
1311 Euclid Street
Suite 6
Santa Monica, CA 90403
(213) 395-4235

Sierra Graphics & Typography
1722 J Street
Suite 19
Sacramento, CA 95814
(916) 444-9133

Sojourn Design Group Inc.
3631 San Gabriel River
Parkway
Pico Rivera, CA 90660
(213) 699-0407

Specialized Data Products
1800 Park Newport
Suite 302
Newport Beach, CA 92661
(714) 604-0218

Straight Line Graphics
1823 Stanford Street
Santa Monica, CA 90405
(213) 829-7431

Subia Inc.
3155 West El Segundo Boulevard
Hawthorn, CA 90250
(213) 970-1288

Super Set Graphics
11642 Knott Avenue
Suite 13
Garden Grove, CA 92642
(714) 898-0883

Tele Graphics
43255 Mission Boulevard
Fremont, CA 94538
(415) 657-8095

Type Haus
140 South Wolfe Road
Sunnyvale, CA 94088
(408) 773-9447

The Typesetting Company
6700 Valjean Avenue
Van Nuys, CA 91408
(213) 904-1288

Typesetting Shop Inc.
5236 Claremont Avenue
Oakland, CA 94618
(415) 654-5404

Typeworks
707 Continental Circle
Suite 119
Mountain View, CA 94040
(415) 966-8966

Typographic Service Co., Inc.
934 Venice Boulevard
Los Angeles, CA 90015
(213) 749-8383

Typothetae
963 Commercial Street
Palo Alto, CA 94302
(415) 493-1610

Unicorn Press Inc.
Box 2278
2136 South Wright Street
Santa Ana, CA 92707
(714) 546-7320

Versa Type Phototypesetting Service
23236D South Mariposa Avenue
Torrance, CA 90502
(213) 539-1611

Vision Graphics
12637 Los Nietos Road
Santa Fe Springs, CA 90670
(213) 698-4317

Walter Dorwin Teague Associates Inc.
2900 Saviers Road
Suite 300
Oxnard, CA 93033
(805) 487-5543

Word Works of Oakland
41 Grand Avenue
Oakland, CA 94610
(415) 444-1314

COLORADO

Anderson Advertising Art
8790 West Colfax Avenue
Suite 110
Lakewood, CO 80215
(303) 232-1542

Bradford/Will Graphics
5825 West Sixth Avenue
Lakewood, CO 80214
(303) 233-9128

Eagle Lithographics
5105 East 41 Street
Denver, CO 80216
(303) 320-5411

Graphics West
324 North Farragut
Colorado Springs, CO 80902
(303) 633-4446

Herschfield Press
5200 Smith Road
Denver, CO 80202
(303) 320-8500

Kistler Graphics
4000 Dahlia Street
Denver, CO 80202
(303) 399-2581

Laser Graphics Inc.
1532 Emerson Street
Denver, CO 80202
(303) 830-1808

Photocomp Phototypographers
1023 West Colorado Avenue
Colorado Springs, CO 80904
(303) 475-1122

Right Type
1129 Colorado Avenue
Suite 119
Grand Junction, CO 81501
(303) 241-0501

Service Typographers
3516 North Prospect Street
Colorado Springs, CO 80907
(303) 636-1930

Wordcom
1523 18 Street
Second Floor
Denver, CO 80202
(303) 629-1588

CONNECTICUT

Ads Inc.
1823 Silas Deane Highway
Box 588
Rocky Hill, CT 06067
(203) 529-2581

ATO Studios
41 Pepper Ridge Road
Stamford, CT 06905
(203) 322-9422

Bacon Printing Co.
125 Water Street
Derby, CT 06418
(203) 734-3344

Banner Press
800 Post Road East
Westport, CT 06880
(203) 226-9551

Cory Type and Design
2083 Main Street
Stamford, CT 06901
(203) 377-1291

Eastern Typesetting Co.
515 John Fitch Boulevard
South Windsor, CT 06074
(203) 528-9631

Four Quarters Composition Services
959 Boston Post Road
Guilford, CT 06437
(203) 453-6163

Graphic Arts Associates
575 Hope Street
Stamford, CT 06907
(203) 348-9197

The Graphic Center
26 Tobey Road
Bloomfield, CT 06002
(203) 522-2233

Justified Type Inc.
528 Clinton Avenue
Bridgeport, CT 06605
(203) 579-1717

Lettick Typografic Inc.
227 Wheeler Avenue
Bridgeport, CT 06606
(203) 367-6491

Nortype
Graphics Plaza
Box 281
South Norwalk, CT 06856
(203) 838-4848

Set To Fit
200 Pemberwick Road
Box 4127
Greenwich, CT 06830
(203) 622-9301

Southern New England
Typographic Service
2115 Dixwell Avenue
Hamden, CT 06508
(203) 288-1611

Typelink International
1200 Boston Post Road
Guilford, CT 06437
(203) 453-9674

Wordsmith Network
53 Connecticut Boulevard
East Hartford, CT 06108
(203) 282-0364

DELAWARE

Associates International
1204 Market Street
Box 1772
Wilmington, DE 19899
(302) 652-2700

Cann Graphics Inc.
1608 Delaware Avenue
Wilmington, DE 19806
(302) 658-7551

Communigraphics Inc.
2930 Ogletown Road
Newark, DE 19711
(302) 737-1555

Krim Typesetters
107 McDaniel Avenue
Wilmington, DE 19801
(302) 478-9048

The Powerline Inc.
153 Chestnut Hill Road
Newark, DE 19711
(302) 366-0227

Reports Inc.
700 Orange Street
Wilmington, DE 19899
(302) 656-2209

Telectronics Corp.
ADCOM Phototypesetting Service
901 Washington Street
Wilmington, DE 19801
(302) 655-7407

DISTRICT OF COLUMBIA

Circle Graphics
1200 29 Street, NW
Box 3568
Washington, DC 20007
(202) 872-1190

Graphictype Inc.
1705 DeSales Street, NW
Washington, DC 20036
(202) 833-5686

Rings-Leighton Ltd.
627 E Street, NW
Fourth Floor
Washington, DC 20001
(202) 347-7488

Robey Graphics Inc.
1339 Pennsylvania Avenue, SE
Washington, DC 20003
(202) 544-0703

Wordscape Inc.
1614 20 Street, NW
Washington, DC 20009
(202) 232-7197

FLORIDA

Brut Printing
503 Parker Street
Jacksonville, FL 32202
(904) 354-5055

Communicator Associates Inc.
Box 3386
Indialantic, FL 32903
(305) 729-6121

Copy Shop
1208 North Mills Avenue
Orlando, FL 32801
(305) 896-7637

Custom Typesetting
3627 8th Avenue South
St. Petersburg, FL 33701
(813) 327-3814

H. & W. B. Drew Co.
Box 340758
Coral Gables, FL 33134
(305) 445-1552

Franklin Press Inc.
928 Southwest 10 Street
Miami, FL 33155
(305) 858-6900

Graphics South
6 Harrison Street
Cocoa, FL 32922
(305) 631-2120

J&B Graphics
3135 Tyrone Boulevard, North
St. Petersburg, FL 33704
(813) 384-0562

Johnson & Johnson
Typesetters Inc.
1238 South Dixie Highway
Hollywood, FL 33023
(305) 925-7585

Miller Typography
1430 Prudential Drive
Fort Lauderdale, FL 32207
800-874-5272

Printing Etcetera
742 Colorado Avenue
Stuart, FL 33494
(305) 286-2719

Tampa Typesetting Inc.
5021A West Nassau
Tampa, FL 33607
(813) 879-6875

Tele Graphics Inc.
2525 Old Okechobee Road
West Palm Beach, FL 33401
(305) 471-4606

Trendsetters
1881 Northeast 26 Street
Fort Lauderdale, FL 33306
(305) 566-1705

Typesetting by MRC's
2953 Bee Ridge
Sarasota, FL 33578
(813) 922-5445

Typo-Graphics Inc.
2602 East Livingston Street
Orlando, FL 32801
(305) 896-2696

GEORGIA

Albany Quik Print Inc.
315 Broad Avenue
Albany, GA 31702
(912) 883-4411

Autocomp Inc.
2155 Monroe Drive, NE
Atlanta, GA 30324
(404) 875-0421

Datalantic Inc.
1015A Collier Road, NW
Atlanta, GA 30318
(404) 352-0811

Franklin's Typesetting
205 Walton Street, NW
Atlanta, GA 30303
(404) 525-0406

Type-Repro Service Inc.
1212 Collier Road, NW
Atlanta, GA 30318
(404) 351-9330

HAWAII

Type House Hawaii
Box 30468
Honolulu, HI 96820
(808) 841-4231

IDAHO

Syms-York Co.
2401 Main Street
Box 7158
Boise, ID 83707
(208) 342-3515

ILLINOIS

Ad Systems Inc.
723 South Wells Street
Chicago, IL 60606
(312) 427-4025

Anzographics
213 West Institute Place
Suite 209
Chicago, IL 60610
(312) 642-8973

B&G Industries
1218 Lloyd Avenue
Lombard, IL 60148
(312) 932-4800

Black Dot
6115 Official Road
Box B 6115
Crystal Lake, IL 60014
(815) 459-8520

Sidney Clayton Associates
711 West Monroe Street
Chicago, IL 60606
(312) 648-9500

Copyshop
300 North State Street
Chicago, IL 60610
(312) 828-0991

Courtesy Graphics
347 North Milwaukee Avenue
Libertyville, IL 60048
(312) 367-0250

Des Plaines Publishing Co.
1000 Executive Way
Des Plaines, IL 60018
(312) 824-1111

Digitype Inc.
7121 North Ridge Boulevard
Chicago, IL 60645
(312) 274-8606

R. R. Donnelly & Sons, Inc.
2122 York Road
Oak Brook, IL 60521
(312) 920-3800

Graphic Arts Data Service
200 West Monroe Street
Chicago, IL 60606
(312) 263-4226

Graphic Sales Inc.
550 West Jackson Boulevard
Suite 419
Chicago, IL 60606
(312) 930-9292

The Interstate Printers & Publishers Inc.
19-27 North Jackson Street
Danville, IL 61832
(217) 446-0500

Jandon Graphics Inc.
2855 West Nelson
Chicago, IL 60618
(312) 463-0847

Madden Graphics Inc.
1147 West Jackson
Chicago, IL 60605
(312) 738-6008

North Coast Associates
740 North Rush Street
Chicago, IL 60611
(312) 944-4446

Phone-Type
1404 North Western
Chicago, IL 60622
(312) 486-3131

Picatype Inc.
6226 North Pulaski Road
Chicago, IL 60646
(312) 736-1050

Progressive Graphics
200 Washington Street
Oregon, IL 61061
(815) 732-7941

Publishers Typesetters Inc.
5272 North Elston Avenue
Chicago, IL 60630
(312) 283-3340

RT Associates
Box 1073
Elgin, IL 60120
(312) 888-3941

Reliance Graphics
3150 North Sawyer Street
Chicago, IL 60618
(312) 267-8400

Richards Typesetting & Printing Co.
621 South Plymouth Court
Chicago, IL 60605
(312) 427-3127

Scangraphics Inc.
1120 North Tower Lane
Bensenville, IL 60106
(312) 860-1200

Star Type Inc.
6939 West 59 Street
Chicago, IL 60638
(312) 586-5221

Tele/Typography Inc.
730 North Franklin Street
Chicago, IL 60610
(312) 787-1100

Type Factory Ltd.
723 Aurora Avenue
Aurora, IL 60505
(312) 859-2268

Wood River Printing & Publishing
101 Whitelaw Avenue
Wood River, IL 62095
(312) 355-1099

INDIANA

Alexander Typesetting Inc.
125 North East Street
Indianapolis, IN 46204
800-428-2366

Central Publishing
401 North College Avenue
Box 1652
Indianapolis, IN 46206
(317) 636-4504

Graphics House
Box 683
Daleville, IN 47334
(317) 378-6226

Image Associates of Indiana
12536 East Jefferson Street
Mishawaka, IN 46544
(219) 259-6758

Indytype/Shepard & Poorman
4040 West 10 Street
Indianapolis, IN 46234
(317) 248-2455

Kendallville Printing Co., Inc
604 South Orchard Street
Box 248
Kendallville, IN 46755
(219) 347-3366

Rogers Typesetting Co., Inc.
220 North Fulton Street
Indianapolis, IN 46202
(317) 632-4521

Speedee Print
1657 Commerce Drive
South Bend, IN 46674
(317) 234-1019

Triad Composition Inc.
1300 North Pennsylvania Street
Indianapolis, IN 46202
(317) 638-4128

2001/Ideananics
Typographers Inc.
Box 50010
Indianapolis, IN 46250
(317) 849-5805

Weimer Typesetting Co., Inc.
111 East McCarty Street
Box 6
Indianapolis, IN 46206

Word Processing of
Indiana Inc.
232 West Wayne Street
Ft. Wayne, IN 46802
(219) 422-1585

IOWA

Wm. C. Brown Publishing Co.
2460 Kerber Boulevard
Dubuque, IA 52001
(319) 589-2856

Bye & Bye Inc.
110 South Main Street
Holstein, IA 51025
800-831-6964

C&R Publishing Corp.
Box 1024
Clive, IA 50053
(515) 270-0181

Clarinda Co.
220 North First Street
Clarinda, IA 51632
800-831-5821

Data-Com Services Inc.
636 First Street
Webster City, IA 50595
(515) 832-5481

Rockwell International/Collins
Division
440 Collins Road, NE
Mail Station 167-100
Cedar Rapids, IA 52498
(319) 395-5354

Typeco Inc.
333 Southwest 9 Street
Des Moines, IA 50309
(515) 282-8973

KANSAS

Amundson Group
11742 West 86 Terrace
Lenexa, KS 67645
(913) 492-5560

Garlinghouse Printing
2320 Kansas Avenue
Topeka, Kansas 66604
(913) 357-6331

Gilliland's Publishing Co.
Box 1107
Arkansas City, KS 67005
(316) 442-0500

McManis Typesetting
227 Poyntz Avenue
Manhattan, KS 66502
(913) 537-8373

National Electronic Type
2320 Kansas Avenue
Topeka, Kansas 66604
(913) 357-6331

Printing Inc.
344 North St. Francis
Wichita, KS 67202
(316) 263-6184

KENTUCKY

Advertising Production Service
1706 Bardstown Road
Louisville, KY 40218
(502) 451-0341

Gibbs-Inman Co.
Box 32030
Louisville, KY 40232
(502) 966-3151

Neighbor Graphics
Box 91206
5703 Bardstown Road
Louisville, KY 40291

Publishers Press Inc.
1 Fourth Avenue
Shepherdsville, KY 40165
(502) 543-2251

LOUISIANA

Dixie Web Graphics Inc.
1403 Annunciation Street
New Orleans, LA 70119
(504) 522-6144

Ink Inc.
2516 Johnston Street
Lafayette, LA 70501
(318) 235-7073

Macadams Composing Service
4617 Sanford Street
Suite B
Metairie, LA 70004

Type + Plus Inc.
4928 Government Street
Baton Rouge, LA 70806
(504) 923-0575

MAINE

Beech Hill Publishing Co.
Box 229
Mount Desert, ME 04660
(207) 244-3931

Camden Type 'N Graphics
5 Free Street
Camden, ME 04843
(207) 236-9500

Duarte Co.
693 Webster Road
Lewiston, ME 04240
(207) 782-5246

Seavey Printers Inc.
34 Diamond Street
Box 4880
Portland, ME 04112
(207) 774-1457

MARYLAND

Action Comp Co., Inc.
3039 Hamilton Avenue
Baltimore, MD 21216
(301) 426-1300

Advertising Design Press Inc.
1220 Ridgely Street
Baltimore, MD 21230
(301) 752-2181

Barton Graphics
3201 Rhode Island Avenue
Mt. Rainier, MD 20721
(301) 779-4664

Cambridge Typesetters Ltd.
5424 Burling Road
Bethesda, MD 20014
(301) 986-8995

Corporate Image Ltd.
8405 Dixon Avenue
Silver Spring, MD 20910
(301) 588-3345

Data Composition Service Inc.
13501 Baltimore Boulevard
Laurel, MD 20810
(301) 953-3196

Dean's Inc.
2211 Maryland Avenue
Baltimore, MD 21218
(301) 366-2224

Ecological Analysts Inc.
15 Loveton Circle
Sparks, MD 21152
(301) 771-4950

Electro-Graphics Inc.
2503 St. Paul Street
Baltimore, MD 21218
(301) 889-6660

Ex-Speed-Ite Service Inc.
12201 Old Columbus Pike
Silver Spring, MD 20904
(301) 622-5000

Fototypesetters Inc.
1501 Guilford Avenue
Baltimore, MD 21202
(301) 528-1818

General Communications Inc.
401 East Jefferson Street
Suite 105
Rockville, MD 20850
(301) 251-1313

Harper Graphics Inc.
Box 1321-1, Post Office Road
Waldorf, MD 20601
(301) 843-6950

International Development
Center
3514 Plyers Mill Road
Kensington, MD 20795
(301) 949-0220

Litho Composition Services Inc.
4401 East-West Highway
Suite 102
Bethesda, MD 20014
(301) 657-2990

Mid-Atlantic Photo Comp Inc.
2 West 25 Street
Baltimore, MD 21218
(301) 467-1125

Modern Trends Composition
12703 Lee Ben Road
Kingsville, MD 21087
(301) 592-7618

Monotype Composition Co.
2050 Rockrose Avenue
Baltimore, MD 21211
800-422-TYPE

Naecker Bros. Lithographers Inc.
9170 Brookville Road
Silver Spring, MD 20910
(301) 588-2010

Port City Press
1323 Greenwood Road
Baltimore, MD 21208
(301) 486-3000

Tele-Data Inc.
4890 Stamp Road
Temple Hills, MD 20748
(301) 899-6710

Valley Typesetting Inc.
4327 Gallatin Street
Hyattsville, MD 20781
(301) 699-3333

Vitro
14000 Georgia Avenue
Silver Spring, MD 20910
(301) 871-4112

Waverly Press Inc.
428 East Preston Street
Baltimore, MD 21601
(301) 528-4100

MASSACHUSETTS

Altertext
210 Lincoln Street
Third Floor
Boston, MA 02134
(617) 426-0009

American Typesetting Inc.
Box 556
Brockton, MA 02403
(617) 588-1900

Arlington Graphics
1046 Massachusetts Avenue
Arlington, MA 02174
(617) 641-1860

Automation Graphics Inc.
17 Willow Street
Natick, MA 01760
(617) 653-6116

Channing L. Bete Co., Inc.
200 State Road
South Deerfield, MA 01373
(413) 665-7611

C&C Associates
904 Main Street
Wilmington, MA 01887
(617) 272-6816

Cambridge Composition
56 Creighton Street
Cambridge, MA 02140
(617) 492-2387

Compset Inc.
2 Enon Street
Beverly, MA 01915
(617) 922-1955

Connections Information
Services Inc.
2 Central Square
Cambridge, MA 02139
(617) 491-3010

Copy Quick
173 Chelsea Street
Everett, MA 02149
(617) 387-8880

Crockergraphics
80 Spring Road
Needham, MA 02192
(617) 444-7020

Daniels Printing Co.
40 Commercial Street
Everett, MA 02149
(617) 389-7900

Dataforms Co., Inc.
28 Travis Street
University Park
Boston, MA 02134
(617) 783-2330

Davis Press
44 Portland Street
Worcester, MA 01608
(617) 754-4114

DEKR Corp.
21 Cummings Park
Woburn, MA 01801
(617) 935-8010

Goodway Graphics of
Massachusetts Inc.
16 A Street
Burlington, MA 01803
(617) 272-2690

Grafacon Inc.
8 Kane Industrial Drive
Hudson, MA 01749
(617) 562-9131

House of Offset Inc.
48 Third Avenue
Somerville, MA 02143
(617) 776-6400

Howard Advertising Inc.
446 Main Street
Worcester Plaza, 14th Floor
Worcester, MA 01608
(617) 791-2118

Inforonics Inc.
550 Newtown Road
Littletown, MA 01460
(617) 486-8976

Keyboard Communications Inc.
2 Florence Street
Malden, MA 02148
(617) 321-0600

Kirshen Printing Corp.
160 North Washington Street
Boston, MA 02114
(617) 742-2760

Lexington Press Inc.
7 Oakland Street
Lexington, MA 02173
(617) 862-8900

Modern Graphics Inc.
Box 288
Randolph, MA 02368
(617) 986-5262

Naiman Press Inc.
425 Merrimack Street
Lawrence, MA 01842
(617) 682-1291

QML Communications
450 Washington Street
Dedham, MA 02026
(617) 329-8111

Quality Software Inc.
60 Lewis Street
Newton, MA 02158
(617) 965-2231

Rapid Service Press
372 Broadway
Boston, MA 02111
(617) 423-3100

Recording & Statistical Corp.
55 William T. Morrissey
Boulevard
Boston, MA 02125
(617) 282-8007

United Lithograph
48 Third Avenue
Somerville, MA 02143
(617) 776-6400

Weston Reprographics
45 Industrial Park Road
Hingham, MA 02043
(617) 749-0936

Williams Graphics Service Inc.
134 Water Street
Wakefield, MA 01880
(617) 246-1310

Woodland Graphics
6 DeAngelo Drive
Bedford, MA 01730
(617) 275-1600

WordPro Inc.
Box 738
Amherst, MA 01002
(413) 549-6310

Wordtech Corp.
329 Washington Street
Woburn, MA 01801
(617) 933-5550

Wrightson Typographers
Box 399
90 Bridge Street
Newton, MA 02158
(617) 964-7700

Xanadu Graphics
143 Albany Street
Cambridge, MA 02139
(617) 661-6975

MICHIGAN

Acraforms Inc.
2350 Oak Industrial Drive, NE
Grand Rapids, MI 49505
(616) 458-1161

The Board Room
1938 East Jefferson
Detroit, MI 48207
(313) 568-0350

Cadence Corp.
705 Bagley, SE
Grand Rapids, MI 49502
(616) 454-9456

Central Trade Plant of
Grand Rapids Inc.
2350 Oak Industrial, NE
Grand Rapids, MI 49505
(616) 458-1161

Central Typesetting
550 West Fort Street
Detroit, MI 48226
(313) 961-7171

Communications Electronics
Box 1002
Ann Arbor, MI 48106
(313) 971-0033

Computer Composition Corp.
32407 Industrial Drive
Madison Heights, MI 48071
(313) 588-2500

Comspec Inc.
23100 Providence Drive
Suite 180
Southfield, MI 48075
(313) 557-1828

Edwards Brothers Inc.
Box 1007
Ann Arbor, MI 48106
(313) 769-1000

Gaylord Printing Company
15555 Woodrow Wilson
Detroit, MI 48238
(313) 883-7800

Gilson Press
631 North Avenue, NE
Grand Rapids, MI 49505
(616) 459-4539

Grand Rapids Typesetting
3291 East Paris, SE
Grand Rapids, MI 49506
(616) 942-7870

Henry Company
1177 West Baltimore
Detroit, MI 48202
(313) 875-1950

Huntington Graphic Service
26789 Woodward Avenue
Huntington Woods, MI 48070
(313) 548-9285

JM Graphics
111 Garden, SE
Grand Rapids, MI 49501
(616) 245-9354

Jackson Typesetting Co.
1820 West Ganson Street
Box 509
Jackson, MI 49202
(517) 784-0576

Keyboard Studios Inc.
1938 East Jefferson
Detroit, MI 48207
(313) 568-0350

North American Graphics
1629 West Lafayette Boulevard
Detroit, MI 48216
(313) 962-6969

Renaissance Printing Inc.
76 West Adams
Suite 800
Detroit, MI 48226
(313) 964-3185

Tele Typesetting
224 Nickels Arcade
Ann Arbor, MI 48108
(313) 761-7664

Textset Inc.
1612 Anderson
Box 7993
Ann Arbor, MI 48107
(313) 996-3566

Tweddle Type Service
24000 Harper Avenue
St. Claire Shores, MI 48083
(313) 371-3300

Typographic Insight Ltd.
6109 Jackson Road
Ann Arbor, MI 48103
(313) 994-3904

West Michigan Catalog Service
3060 Madison, SE
Grand Rapids, MI 49506
(616) 243-0013

Willens + Michigan Inc.
1959 East Jefferson
Detroit, MI 48207
(313) 567-8900

MINNESOTA

Alphagraphics One Inc.
4020 Minnetonka Boulevard
Minneapolis, MN 55417
(612) 926-5979

Bolger Publications
3301 Como Avenue, SE
Minneapolis, MN 55414
(612) 645-6311

Century Design
6425 Oxford Street
St. Louis Park, MN 55426
(612) 920-3601

Cold Type Setters Inc.
903 Washington Avenue South
Minneapolis, MN 55401
(612) 339-0531

Graph-Tronics Inc.
1320 Yale Place
Minneapolis, MN 55403
(612) 338-7171

International Graphics
1660 South Highway 100
Minneapolis, MN 55423
800-328-7172

Landmark Typesetters
7847 12 Avenue South
Bloomington, MN 55420
(612) 854-3345

M&M Printing Inc.
631 Eighth Avenue North
Minneapolis, MN 55411
(612) 338-8545

K. F. Merrill Co.
1731 University Avenue
St. Paul, MN 55104
(612) 646-4501

Minnesota Graphics Inc.
4565 West 77 Street
Edina, MN 55424
(612) 831-3014

Phone-A-Type
633 Eighth Avenue North
Minneapolis, MN 55411
(612) 338-8545

Publishers Service Inc.
7675 Washington Avenue South
Edina, MN 55424
(612) 944-6066

Service Printers of Duluth Inc.
127 East Second Street
Duluth, MN 55805
(218) 727-1513

Tri Star Graphics
416 Portland Avenue
Minneapolis, MN 55415
(612) 372-3880

Typenique Graphics Inc.
7071 Shady Oak Road
Eden Prairie MN 55344
(612) 941-0333

Webb Publishing Co.
1999 Shepard Road
St. Paul, MN 55116
(612) 690-7460

West Publishing Co.
Box 3526
St. Paul, MN 55165
(612) 228-2772

MISSISSIPPI

Carlton's Type Service
Box 1282
Jackson, MS 39205
(601) 353-4637

Franklin Printers Inc.
330 Commerce Park Drive
Jackson, MS 39213

Star Graphics Inc.
4443 Interstate 55 North
Box 16586
Jackson, MS 39206
(601) 981-2161

Type Masters
975 North Street
Suite 208
Jackson, MS 39201
(601) 948-4315

MISSOURI

Connell Typesetting Company
1715 Wyandotte
Kansas City, MO 64108
(816) 842-1484

DataPage
510 Highway 175
O'Fallon, MO 63366
(314) 272-7820

First Impression Inc.
510 South Hanley
St. Louis, MO 63105
(314) 863-7711

Free Lance Graphics
1660 Broadway
Kansas City, MO 64105
(816) 842-1455

Lowell Press
115 East 31 Street
Kansas City, MO 64141

McMan Associates Inc.
5236 NW 64 Street
Kansas City, MO 64111
(816) 741-1330

Media Graphics
1118 Wilkes Boulevard
Columbia, MO 65201
(314) 449-0002

National Typographers Inc.
701 North 15 Street
St. Louis, MO 63103
(314) 241-8297

Opticomm Inc.
3203 Olive Street
St. Louis, MO 63103
(314) 652-4095

Rahija & Associates Inc.
406 West 34 Street
Kansas City, MO 64111
(816) 931-2444

Sharpgraphics
227 East Linwood Boulevard
Kansas City, MO 64111
(816) 931-1682

The Type House Inc.
7412 Manchester Avenue
St. Louis, MO 63143
(314) 644-1404

Typographic Sales Inc.
1035 Hanley Industrial Court
St. Louis, MO 63144
(314) 968-6800

Typographics Inc.
2 East 33 Street
Kansas City, MO 64111
(816) 931-6663

Typotronics Inc.
2001 Hanley Center
St. Louis, MO 63103
(314) 647-8880

Watson Directory Corp.
3684 Forest Park
St. Louis, MO 63101
(314) 652-6715

Western Publishing Co., Inc.
510 Highway 175
O'Fallon, MO 63366
(314) 272-7820

Winsby Typesetting
2705 Olive Street
St. Louis, MO 63103
(314) 652-9374

NEBRASKA

Christensen Inc.
1540 Adams Street
Lincoln, NE 68501
(402) 476-7535

Custom Typographers Inc.
3901 Leavenworth Street
Omaha, NE 68105
(402) 422-0240

Priesman Graphics
1615 Howard Street
Omaha, NE 68102
(402) 342-2265

Tel-A-Comp Inc.
1304 South Saddle Creek Road
Omaha, NE 68131
(402) 558-5991

NEW HAMPSHIRE

Allprint Inc.
Box 597
Salem, NH 03079
(603) 893-2787

Reprographics Corp.
29 Storrs Street
Concord, NH 03301
(603) 224-5323

Wallace Press
10 Middle Street
Milford, NH 03055
(603) 673-2514

Yankee Inc.
Dublin, NH 03444
(603) 563-8111

NEW JERSEY

A&E Graphics
51 Westfield Avenue East
Roselle Park, NJ 07204
(201) 241-5400

Allen Associates
525 Boulevard
Kenilworth, NJ 07033
(201) 272-0011

Arrow Typographers Inc.
2-14 Liberty Street
Newark, NJ 07102
(201) 622-0111

Aura Graphics Inc.
3720 Federal Street
Camden, NJ 08101
(609) 963-5850

Benway, Maxwell & Smith Inc.
205 Main Street
Chatham, NJ 07928
(201) 635-9530

Century Graphics Inc.
1101 State Road
Building N, Research Park
Princeton, NJ 08540
(609) 921-2002

Cold Type Center Inc.
768 Carver Avenue
Westwood, NJ 07675
(201) 666-1442

Design/Type Inc.
172 Main Street
West Orange, NJ 07052
(201) 731-6674

Dimensional Graphics
263 East First Avenue
Roselle, NJ 07203
(201) 241-6900

Elizabeth Typesetting Co.
26 West 26 Street
Kenilworth, NJ 07033
(201) 241-6161

G. S. Lithographers
One Kero Road
Carlstadt, NJ 07072
(201) 933-07072

Granite Graphics
19 Franklin Place
Rutherford, NJ 07070
(201) 438-7398

Graphic Data
Fellowship Road and
West Park Drive
Mt. Laurel, NJ 08054
(609) 778-1560

Graphic Design
545 Stratford Road
Union, NJ 07083
(201) 561-3970

Interstate Printing Corp.
400 Watchung Avenue
Box 1032
Plainfield, NJ 07061
(201) 756-4037

J. T. Graphics
363 Milltown Road
Springfield, NJ 07081
(201) 467-8041

Lithoflex Corp.
120 Route 23S
Hamburg, NJ 07419
(201) 827-2951

Martin Co.
321 Commercial Avenue
Palisades Park, NJ 07650
(201) 592-0952

Newark Trade Typographers
177 Oakwood Avenue
Orange, NJ 07050
(201) 674-3727

North Jersey Typographers
626 Route 202
Towaco, NJ 07082
(201) 335-1292

Optima Typesetting Inc.
77 Main Street
Kingston, NJ 08528
(609) 921-0895

Photonics Ltd.
188 Highwood Avenue
Tenafly, NJ 07670
(201) 569-5245

Post Graphics Corp.
103 Highway 36
East Keansburg, NJ 07734
(201) 787-1400

Precision Graphics Inc.
6601 Crescent Boulevard
Pennsauken, NJ 08105
(609) 663-7528

Print World Inc.
241 Route 206
Bordentown, NJ 08505
(609) 298-9300

Publishers Phototype Inc.
463 Barell Avenue
Carlstadt, NJ 07072
(201) 935-3200

Reproduction Typographers
244 West First Avenue
Roselle, NJ 07203
(201) 241-3200

Rocappi Inc.
7000 North Park Drive
Pennsauken, NJ 08109
(609) 665-5200

Rubino Typo
118 Lafayette Avenue
Westwood, NJ 07675
(201) 664-6202

Schiller Inc.
37 Meridian Road
Edison, NJ 08818
(201) 549-6500

Seham Associates Inc.
14 Charles Street
Metuchen, NJ 08840
(201) 548-6160

University Graphics Inc.
11 West Avenue
Atlantic Highlands, NJ 07716
(201) 872-0800

Van Grouw Composition Co., Inc.
257 Burhans Avenue
Haledon, NJ 07508
(201) 790-1212

Waldman Graphics Inc.
9100 Pennsauken Highway
Pennsauken, NJ 08110
(609) 662-9111

Winters Inc.
174 Willow Street
East Brunswick, NJ 08816
(201) 238-7696

NEW MEXICO

Business Graphics Inc.
3314 Vassar, NE
Albuquerque, NM 87102
(505) 884-2244

Copygraphics
314 Read Street
Santa Fe, NM 87501
(505) 988-1438

NEW YORK

A & M Graphics
328 East Main Street
Rochester, NY 14604
(716) 325-1636

Ace Typographers
149 West 27 Street
New York, NY 10001
(212) 255-7846

Adams Group Inc.
225 Varick Street
New York, NY 10014
(212) 255-4900

Advani Typographic Associates
380 Lafayette Street
New York, NY 10003
(212) 475-0840

Advertising Breakthrough Inc.
45 Middleneck Road
Great Neck, NY 11021
(516) 487-8220

Appeal Printing Co., Inc.
130 Cedar Street
New York, NY 10006
(212) 964-3033

Associated Technical Services
31 East 32 Street
New York, NY 10016
(212) 532-5227

Automatech Graphics Corp.
114 Fifth Avenue
New York, NY 10011
(212) 924-3810

Bauer Inc.
342 Madison Avenue
New York, NY 10002
(212) 599-2218

Baumwell Graphics
461 Eighth Avenue
New York, NY 10001
(212) 868-0515

Bowne Information Systems
435 Hudson Street
New York, NY 10014
(212) 807-7280

Boyd Printing Company Inc.
49 Sheridan Avenue
Albany, NY 12210
(518) 436-9686

Cardinal Type Service Inc.
545 West 45 Street
New York, NY 10036
(212) 489-1717

Clark & Fritts
229 West 28 Street
New York, NY 10001
(212) 736-4794

Corporate Printing Co.
225 Varick Street
New York, NY 10014
(212) 620-5600

Cosmos Press
141 East 25 Street
New York, NY 10010
(212) 243-8912

Cyber-Graphics Inc.
342 Madison Avenue
New York, NY 10002
(212) 682-3177

Data Base Typography
Box 162
Syracuse, NY 13201
(315) 474-7499

Dawn's Graphic Designs Inc.
38-18 217 Street
Bayside, NY 11360
(212) 631-2260

Designer Graphics
150 Lafayette Street
New York, NY 10013
(212) 925-4510

Dial-A-Typesetter
33 Fifth Avenue
Pelham, NY 10803
(914) 738-2603

Dix Type Inc.
One Commerce Boulevard
Box 2115
Syracuse, NY 13201
(315) 437-9925

R. R. Donnelly & Sons Inc.
100 Park Avenue
New York, NY 10017
(212) 490-9258

Euramerica Translations Inc.
257 Park Avenue South
New York, NY 10010
(212) 777-7878

Expertel Inc.
300 Park Avenue South
New York, NY 10010
(212) 420-0990

Fisher Composition Inc.
118 East 25 Street
New York, NY 10010
(212) 598-0200

Ganeedon
7 Westchester Plaza
Elmsford, NY 10523
(914) 592-4098

Gemini Corporation
208 West 30 Street
New York, NY 10001
(212) 736-8877

Graphic Systems Exchange
2070 Five Mile Line Road
Box 168
Penfield, NY 14526
(716) 385-3027

Greenwich Information Processing
601 West 54 Street
New York, NY 10019
(212) 581-1702

Haber Typographers Inc.
115 West 29 Street
New York, NY 10021
(212) 594-9000

Hertz Data/Graphic Systems Inc.
One Fulton Avenue
Hempstead, NY 11550
(516) 489-6400

Hoffman Typographic Service
983 Jefferson Avenue
Buffalo, NY 14204
(716) 885-3900

Hyer Graphics
1 DuPont Street South
Plainview, NY 11803
(516) 349-8060

Infoconversion
280 Crossways Park Drive
Woodbury, NY 11797
(516) 349-5202

Innovative Graphics International
160 Fifth Avenue
New York, NY 10010
(212) 243-0404

Intergraphic Technology Inc.
750 South Main Street
Spring Valley, NY 10977
(914) 852-8000

Iron Works Press
100 Sixth Avenue
New York, NY 10003
(212) 966-1470

Komp Korner
306 Union Street
Schenectady, NY 12305
(516) 377-0924

Letter Space
13 East 16 Street
New York, NY 10003
(212) 255-7115

Lettra Graphics Inc.
364 Mannville Road
Pleasantville, NY 10570
(212) 823-8700

Lexigraphics Inc.
150 Fifth Avenue
New York, NY 10011
(212) 691-3663

Logigraph Network Inc.
120 Broadway, Room 1722
New York, NY 10271
(212) 227-3200

MAS Graphics Inc.
129 Lafayette Street
New York, NY 10013
(212) 925-8406

Majestic Composition Service Inc.
110 West 40 Street
New York, NY 10018
(212) 840-1327

Nassau Typographers Inc.
111 Express Street
Plainview, NY 11803
(516) 433-0100

Pagecrafters Inc.
255 Fruit Valley
Oswego, NY 13126
(315) 343-7243

Partners Composition
405 Main Street
Utica, NY 13501
(315) 797-5555

Pastore DePamphilis Rampone
Computer Typographers
145 East 32 Street
New York, NY 10016
(212) 889-2221

Phoenix Typographers Inc.
716 New York Avenue
Hempstead, NY 11743
(516) 673-6666

Photographic Design
513 South West Street
Syracuse, NY 13202
(315) 474-5308

Photo-Lettering Inc.
216 East 45 Street
New York, NY 10017
(212) 490-2345

Positive Type
Dutchess Avenue
Millerton, NY 12546
(518) 789-3865

Printing Prep
210 Franklin Street
Buffalo, NY 14202
(716) 852-5011

Rochester Mono/Headliners
360 North Street
Box 1169
Rochester, NY 14603
(716) 546-1690

SDA Equipment Co.
71 West 23 Street
New York, NY 10010
(212) 929-5565

Salomon Brothers Inc.
One New York Plaza
New York, NY 10004
(212) 747-7664

Science Typographers Inc.
15 Industrial Boulevard
Medford, NY 11763
(518) 924-4747

Seven Graphic Arts
444 Park Avenue South
New York, NY 10018
(212) 391-3940

Starkey & Henricks Typographers
75 Varick Street
New York, NY 10013
(212) 925-1572

TGI
221 Park Avenue South
New York, NY 10003
(212) 777-3900

Tri-Arts Press
331 East 38 Street
New York, NY 10016
(212) 686-4242

Typeline/TypoGraphics
Communications
305 East 46 Street
New York, NY 10017
(212) 754-9500

Type Network
41 Union Square
New York, NY 10003

Typistry
1400 Main Place Tower
Buffalo, NY 14202
(716) 852-7587

Typographic Designers Inc.
216 East 45 Street
New York, NY 10017
(212) 687-4372

Typographic Images
9 East 37 Street
New York, NY 10016
(212) 889-8510

Typographic Innovations Inc.
221 Park Avenue South
New York, NY 10003
(212) 777-3900

TypoGraphics Communications Inc.
305 East 46 Street
New York, NY 10017
(212) 754-9500

Typographix
26 William Street
Albany, NY 12207
(518) 462-2923

Unbekant Typo Inc.
145 Hudson Street
New York, NY 10013
(212) 925-9125

U.S. Lithograph Inc.
853 Broadway
New York, NY 10003
(212) 673-3210

Unitron Graphics Inc.
180 Varick Street
New York, NY 10014
(212) 255-5500

Utica Typesetting Co.
600 Plant Street
Box 874
Utica, NY 13503
(315) 735-7575

Weber and Stevens Inc.
Ten Hub Drive
Melville, NY 11746
(212) 895-4021

Williams Press Inc.
Box 4025
Albany, NY 12204
(518) 434-1141

Word Management Corp.
138 Everett Road
Albany, NY 12201
(518) 482-8659

World Composition Services Inc.
432 Park Avenue South
New York, NY 10016
(212) 686-5200

Young Inc.
75 Varick Street
New York, NY 10013
(212) 431-5300

Zimmering & Zinn
50 West 23 Street
New York, NY 10010
(212) 989-3151

NORTH CAROLINA

Interstate Graphics Inc.
Box 31863
Charlotte, NC 28201
(704) 375-5506

Tseng Information Systems Inc.
1109 West Main Street
Durham, NC 27701
(919) 682-9197

Washburn Graphics Inc.
801 South McDowell Street
Box 10216
Charlotte, NC 28234
(704) 372-5270

World Typeset
130 Lookout Drive
Asheville, NC 28801
(704) 252-1210

OHIO

Academy Art & Sign Studio
3043 Monre Street
Toledo, OH 43624
(419) 243-1178

Boldruler Inc.
50 Walnut Street
Dayton, OH 45402
(513) 461-7474

Cobb Typesetting Co., Inc.
205 West Fourth Street
Cincinnati, OH 45202
(513) 241-1146

Creative Composition Inc.
1941 Baney Road
Ashland, OH 44805
(419) 289-0558

Dayton Tech Art Co.
1329 Stanley Avenue
Dayton, OH 45401
(513) 461-4720

Dov Graphics
225 East Sixth Street
Cincinnati, OH 45202
(513) 241-5150

Elyria Graphics
147 Winckes Street
Elyria, OH 44035
(513) 365-9384

Graphics Center
24755 Highpoint Road
Cleveland, OH 44114
(216) 464-3297

Greenfield Printing and Publishing
1025 North Washington Street
Greenfield, OH 45123
(513) 981-2161

Harlan Typographic
1107 Dublin Road
Columbus, OH 43215
(614) 486-9641

Industrial Printing Co.
305 Tenth Street
Toledo, OH 43624
(419) 241-7195

Judson-Brooks Co.
1241 Superior Avenue
Cleveland, OH 44114
(216) 621-8384

Kramer Graphics
3975 Rockland Avenue
Dayton, OH 45402
(513) 426-6118

Mag-Tape Composition Inc.
2915 Brookpark Road
Cleveland, OH 44134
(216) 398-1677

Metzger's Type House Inc.
305 Tenth Street
Toledo, OH 43624
(419) 241-7195

Penton/IPC
1111 Chester Avenue
Cleveland, OH 44114
(216) 696-0300

Pinsky Publishing Co.
2831 East Main Street
Columbus, OH 43209
(614) 237-4296

Pony X Press
909 West Fifth Avenue
Columbus, OH 43212
(614) 294-4688

Quality Typesetting Co.
828 East Second Street
Cincinnati, OH 45202
(513) 721-4417

TRW Inc.
1100 East 152 Street
Cleveland, OH 44110
(216) 383-3500

Typesetting Service Inc.
1104 Prospect Avenue
Cleveland, OH 44115
(216) 241-2647

Typo-Set Inc.
2230 Gilbert Avenue
Cincinnati, OH 45202
(513) 751-5116

Whitney-Bolton & Associates
1090 Goodale Boulevard
Columbus, OH 43215
(614) 294-5254

OKLAHOMA

Denver Reese TypoGraphics
809 Robert S. Kerr Avenue
Oklahoma City, OK 73106
(405) 235-6449

Executive Type Inc.
1114 Classen Avenue
Oklahoma City, OK 73103
(405) 236-5601

OREGON

Artifex Typesetting
17 Northeast 172 Avenue
Portland, OR 97230
(503) 254-0340

Editing & Design Services Inc
3030 East 13 Avenue
Box 1376
Eugene, OR 97401
(503) 683-2657

Harrison Typesetting Inc.
1600 Southeast Ankeny
Portland, OR 97201
(503) 238-9891

Industrial Litho Inc.
1699 West Fifth Avenue
Eugene, OR 97402
(503) 345-2309

Mastergraphics
17110 Northeast Halsey Street
Portland, OR 97201
(503) 253-7531

Schlegel Typesetting Co.
207 Northwest 14 Avenue
Portland, OR 97209
(503) 223-2117

PENNSYLVANIA

Alphabet Graphics Inc.
675 Estelle Drive
Lancaster, PA 17601
(717) 898-0839

Batsch Co., Inc.
17 South 19 Street
Box 246
Camp Hill, PA 17011
(717) 761-3260

C & J Enterprises
10175 York Street
Box 591
Mechanicsburg, PA 17055
(717) 766-4417

Centennial Graphics Inc.
210 North State Street
Ephrata, PA 17522
800 233-8973

Composing Room Inc.
1209 Vine Street
Philadelphia, PA 19107
(215) 563-3440

Creative Graphics
831 North 13 Street
Allentown, PA 18103
(215) 266-1670

Daedal Group Inc.
6136-48 Palmetto Street
Philadelphia, PA 19107
(215) 745-8718

Delso Service Inc.
947 Old York Road
Abington, PA 19001
(215) 887-3915

Dornan Inc.
Willows Avenue
Collingdale, PA 19023
(215) 583-5741

Electronic Typesetting Corp.
6649 Germantown Avenue
Philadelphia, PA 19118
(215) 843-1005

Fidelity Graphics
238 Holmes Road
Holmes, PA 19043
(215) 586-9300

Grossman Graphics
5041 Frankford Avenue
Philadelphia, PA 19124
(215) 537-0782

Headliners of Pittsburgh Inc.
1905 Boulevard of the Allies
Pittsburgh, PA 15219
(412) 391-3778

Henry Printing Co.
Box 68
Greensburg, PA 15601
(412) 834-7600

Herbick & Held Printing Co.
1117 Wolfendale Street
Pittsburgh, PA 15233
(412) 321-7400

Hoechstetter Printing Co., Inc.
5560 Centre Avenue
Pittsburgh, PA 15232
(412) 441-7300

Infocomp Inc.
2611 Stanton Street
Pittsburgh, PA 15206
(412) 321-9100

Instant/Flo
4111 Pechin Street
Philadelphia, PA 19104
(215) 482-7010

Kingswood Group
Cricket Terrace Center
Ardmore, PA 19003
(215) 896-5980

LG Graphics
212 Franklin Avenue
Pittsburgh, PA 15221
(412) 371-7701

Lotz Photo-Comp Ltd.
520 Lancaster Avenue
Frazer, PA 19355
(215) 647-3659

McFarland Graphics & Design Inc.
Blair Mountain Road
Dillsburg, PA 17019
(717) 432-9740

Meyer & Son Inc.
432 North Sixth Street
Philadelphia, PA 19106
(215) 627-4320

Moreau Inc.
751 Unity Center Road
Pittsburgh, PA 15230
(412) 242-3770

Packard Press
Tenth & Spring Garden Streets
Philadelphia, PA 19107
(215) 236-3636

Performance Publications Inc.
289 Quincy Place, RD 1
Langhorne, PA 19047
(215) 752-3876

Progressive Typographers Inc.
York County Industrial Park
Box 278
Emigsville, PA 17318
(717) 764-5908

Publiset Inc.
250 West Girard Avenue
Philadelphia, PA 15219
(215) 925-5951

Publisher's Type Center
9278 Old Tyburn Road
Morrisville, PA 19067
(215) 736-0880

Regency Typographic Services Inc.
2867 East Allegheny Avenue
Philadelphia, PA 19134
(215) 425-8810

Science Press
300 West Chestnut Street
Ephrata, PA 17522
(717) 733-7981

Syntax International Pte. Ltd
Willow Springs Lane, Box 2695
York, PA 17405
(717) 764-8502

Technical Communications Inc.
100 Bettis Road
Dravosburg, PA 15034
(412) 469-2260

Typecraft Press Inc.
377 McKee Place
Box 7135
Pittsburgh, PA 15213
(412) 683-6600

Typesetter
983 Limekiln Pike
Ambler, PA 19002
(215) 643-3399

Typographic Services Inc.
1027 Arch Street
Philadelphia, PA 19107
(215) 923-9000

Winchell Co.
1315 Cherry Street
Philadelphia, PA 19107
(215) 568-1770

York Graphic Services Inc.
3600 West Market Street
York, PA 17404
(717) 792-3551

RHODE ISLAND

Micrographix Corp.
4 Equality Park Place
Newport, RI 02840
(401) 849-3473

Typesetting Service Corp.
211 Eddy Street
Providence, RI 02903
(401) 421-2264

SOUTH CAROLINA

R. L. Bryan Co.
Box 368
Columbia, SC 29202

State Printing Co.
Box 1388
Columbia, SC 29201
(803) 799-9550

SOUTH DAKOTA

Pine Hill Printery
700 East Sixth Street
Freeman, SD 57029
(605) 925-4228

TENNESSEE

Better Typesetting
1100 16 Avenue South
Suite 1
Nashville, TN 37203
(615) 242-8134

Curley Printing Company
411 Cowan Street
Nashville, TN 37203
(615) 242-6594

House of Typography
1279 Jefferson Avenue
Memphis, TN 38104
(901) 726-6961

Log On Computer Services
111 Center Park Drive
Box 22459, Suite 3
Knoxville, TN 37901
(615) 690-7312

The Parthenon Press
201 Eighth Avenue South
Nashville, TN 37202
(615) 749-6471

Total Communications Services
300 12 Avenue South
Nashville, TN 37203
(615) 256-8200

Wolfstone Typesetting Inc.
910 Eighth Avenue South
Nashville, TN 37203
(615) 255-1846

TEXAS

Allard, Inc.
3306 West Walnut
Suite 500
Garland, TX 75040
(214) 276-6608

Associated Graphics Inc.
2819 Hillcroft
Houston, TX 75001
(713) 781-6061

Candlelight Type-Print Corp.
504 Willow
Austin, TX 78701
(512) 476-0732

Chiles & Chiles Inc.
1351 South Floyd Road
Richardson, TX 75080
(214) 690-4606

Cimarron Graphics
Box 12593
Dallas, TX 75225
(214) 691-5092

Cold Type Supply Inc.
429 Hanover
Irving, TX 75060
(214) 255-9473

Directype Inc.
Box 140490
Dallas, TX 75214
(214) 827-8674

Docuset Inc.
5959 Westheimer Street
Suite 135
Houston, TX 77057
(713) 783-0422

EN COM Graphics
7070 Empire Central
Houston, TX 77040
(713) 937-6900

G&S Typesetters Inc.
410 Baylor
Austin, TX 78701
(512) 478-5341

Graphic Typography
1451 Empire Central
Suite 110
Dallas, TX 75247
(214) 630-5661

Hallmark Graphics
363 North Belt East
Suite 240
Houston, TX 75001
(713) 591-6032

Leway Composing Service
2917 Horton
Fort Worth, TX 76119
(817) 336-7453

Southwest Creative Graphics
3131 West Alabama
Suite 107
Houston, TX 77098
(713) 524-7433

Southwestern Typographics Inc.
2820 Taylor Street
Dallas, TX 75221
(214) 748-0661

Tenneco Inc.
101 Milam Street
Suite 557
Houston, TX 77001
(713) 757-2750

Typeworks Inc.
2520 Robinhood
Houston, TX 77005
(713) 527-9900

Typografiks Inc.
4701 Nett
Houston, TX 75001
(713) 861-2290

Typography Plus Inc.
1601 Prudential Drive
Dallas, TX 75221
(214) 630-2800

Victoria Business Journal Inc.
Box 2513
Victoria, TX 77901
(512) 573-0201

Wordshare Inc.
4575 Westgrove
Dallas, TX 75221
(214) 931-1022

UTAH

Column Type Co., Inc.
2000 West 2300 South
Publishers Plaza
Salt Lake City, UT 84119
(801) 972-4455

Mormedia Sales
Box 445
Roy, UT 84067
(801) 394-9655

Type Works Inc.
868 McClelland Street
Salt Lake City, UT 84111
(801) 322-1027

VERMONT

Bennington Banner
429 Main Street
Bennington, VT 05201
(802) 447-7567

Brattleboro Reformer
Black Mountain Road
Box 802
Brattleboro, VT 05301
(802) 254-2311

Van Houten Graphics
Route 44
Brownsville, VT 05037
(802) 484-5138

VIRGINIA

Byrd Prepress
5408 Port Royal Road
Springfield, VA 22151
(703) 321-8610

Byrd Press
2901 Byrdhill Road
Richmond, VA 23232
(804) 264-2711

Carter Composition & Printing
3408 West Leigh
Richmond, VA 23230
(804) 359-9206

Carver Photocomposition Inc.
1025 North Fillmore Street
Arlington, VA 22201
(703) 528-0772

Composition Systems Inc.
1011 Arlington Boulevard
Suite W141
Arlington, VA 22209
(703) 528-0066

Creative Graphics
Box 6302
Richmond, VA 23230
(804) 358-1921

Design Group
1318 Church Street
Box 681
Lynchburg, VA 24505
(804) 528-4665

Electro-Type
Box 2413
Springfield, VA 22151
(703) 455-5108

Interface Conversion Services Inc.
603 West Broad Street
Suite 3
Falls Church, VA 22046
(703) 237-0044

Letterform Graphics Inc.
1483 Chain Bridge Road
Suite 105
McLean, VA 22101
(703) 893-1313

Printcraft Press Inc.
305 Columbia Street
Portsmouth, VA 23704
(804) 397-4693

REF Typesetting & Publishing Inc.
9400 Fairview Avenue
Manassas, VA 22110
(703) 361-2300

Riddick Advertising
8631 Maryland Drive
Richmond, VA 23229
(804) 270-1811

Unified Industries Inc.
6551 Loisdale Court
Suite 400
Springfield, VA 22150
(703) 922-9800

V-I-P Systems Inc.
314 Swann Avenue
Alexandria, VA 22301
(703) 548-2164

WASHINGTON

aBCD
Reischling Network Ltd.
915 Yale Avenue North
Seattle, WA 98104
(206) 447-9511

Compu/Systems: Type & Art
1205 First Avenue South
Seattle, WA 98104
(206) 622-3422

Damm Fine Printing
1240 South Jackson Street
Seattle, WA 98144
(206) 325-3434

Data & Staff Telecom Typesetting
1213 Valley Street
Box 9271
Seattle, WA 98109
800-426-9949

Graphic Services Inc.
729 Commerce Street
Tacoma, WA 98402
(206) 627-8495

Lin-Taj Graphics
1092 Second Avenue North
Seattle, WA 98104
(206) 682-7101

Neographics
512 Second Avenue West
Seattle, WA 98104
(206) 283-2020

Type Connection
1240 South Jackson Street
Seattle, WA 98144
(206) 325-3434

Typehouse
1329 Aloha
Seattle, WA 98101
(206) 623-5128

Word Masters Inc.
820 Northeast 45 Street
Suite 3
Box 5019
Seattle, WA 98107
(206) 632-6670

WISCONSIN

CompuSource Inc.
2211 South Tenth Street
Milwaukee, WI 53215
(414) 643-4330

ComSet
Route 1, Box 26
Hudson, WI 54016
(715) 386-9516

Graphic Composition Inc.
1435 Midway Road
Box 585
Menasha, WI 54952
(414) 739-3152

Impressions Inc.
103 South Second Street
Box 3304
Madison, WI 53716
(608) 244-6218

L.M. Printing Inc.
5135 North Teutonia Avenue
Milwaukee, WI 53206
(414) 466-3030

Landmann Associates Inc.
6402 Monona Drive
Box 6066
Madison, WI 53716
(608) 221-9333

Parkwood Composition Service Inc.
1345 South Knowles Avenue
New Richmond, WI 54017
(715) 246-6365

Shopper Stopper Ltd.
327 Palisade Street
Merrimac, WI 53561
(608) 493-2291

CANADA

ALBERTA

Contemporary Typographers Ltd.
10116 105 Avenue
Edmonton, AL T5H OK2

BRITISH COLUMBIA

Hemlock Printers Ltd.
7015 Curragh Avenue
Burnaby, BC V5J 4V7
(604) 438-2456

Monday Publications Ltd.
823 Broughton Street
Victoria, BC V8W 1
(604) 382-6188

Pola/Graphics Ltd.
342 Water Street
Vancouver, BC V6B 1B6
(604) 685-6592

MANITOBA

Kromar Printing Ltd.
725 Portage Avenue
Winnipeg, MA R3G OM8
(204) 775-8721

Lawson Computer Graphics
708 Moray Street
Winnipeg, MA R3J 3S9
(204) 889-9162

NOVA SCOTIA

Aristat
1656 Barrington Street
Halifax, NS B3J 2A2
(902) 429-7464

ONTARIO

Accutype Ltd.
31 Railside Road
Don Mills, ON M3A 1B2
(416) 447-6461

Alpha Graphics Ltd.
720 King Street West
Toronto, ON
(416) 365-0150

Alphatext Inc.
240 Catherine Street
Ottawa, ON K2P 2GB
(613) 238-5333

Bytes Interface Technical
Systems Ltd.
216 Adelaide Street West
Toronto, ON M5H 1W7
(416) 977-0396

Computer Composition of Canada
4500 Sheppard Avenue, East
Scarborough, ON M1S 3R6
(416) 298-9705

Computer Typesetting of Canada
445 King Street West
Toronto, ON M5V 1K5
(416) 864-9672

Graph Comp Design
119 Ross Avenue
Ottawa, ON K1Y 0N6
(613) 729-1436

Q Composition Inc.
5302 Dudad West
Toronto, ON M9B 1B2
(416) 236-2364

Rous Mann & Brigden
384 Richmond Street, East
Toronto, ON M5A 1P9
(416) 363-6321

Southam Communications Ltd.
1450 Don Mills Road
Don Mills, ON M3B 2X7
(416) 445-6641

Southam Murray
2973 Weston Road
Weston, ON M9M 2T2
(416) 741-9700

Sumner Press
Box 1150
Windsor, ON N9A 6PB
(519) 966-1044

Words and Graphics Inc.
25 Overlea Boulevard
Toronto, ON M4H 1B1
(416) 421-5611

Words Over North America
510 King Street
Toronto, ON
(416) 862-0104

QUEBEC

MGM Typographers Inc.
8856 St. Lawrence Boulevard
Montreal, QU
(514) 384-6571

Trandek Printing Ltd.
4980 Buchan Street
Suite 501
Montreal, QU H4P 1S8
(514) 341-3806